TARA HOSPITAL NUMBER · TARA-HOSPITAAL UITGAWE

MEDICAL PROCEEDINGS

MEDIESE BYDRAES

A South African Journal for the Advancement of Medical Science

'n Suid-Afrikaanse Tydskrif vir die Bevordering van die Geneeskunde

Registered at the General Post Office as a Newspaper · By die Hoofposkantoor as Nuusblad Geregistreer

Vol. 2 · No. 10 · 5s | Johannesburg 4 August 1956 Augustus 4 | Jaarliks £1 : 1 : 0 Yearly

IN THIS ISSUE · IN HIERDIE UITGAWE

Professional Appointments

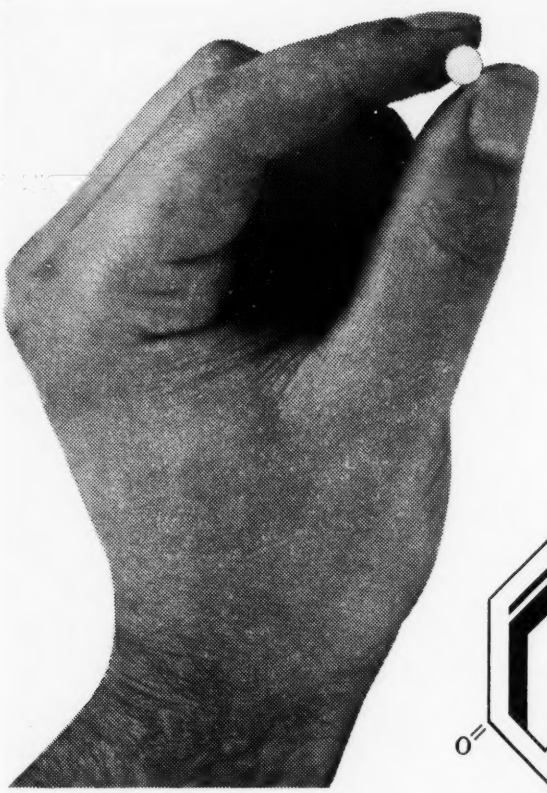
Before applying for any professional appointment advertised in this Journal, it is suggested that medical practitioners communicate with the Honorary Secretary of the Branch of the Medical Association in whose area the advertised post falls.

Professionele Aanstellings

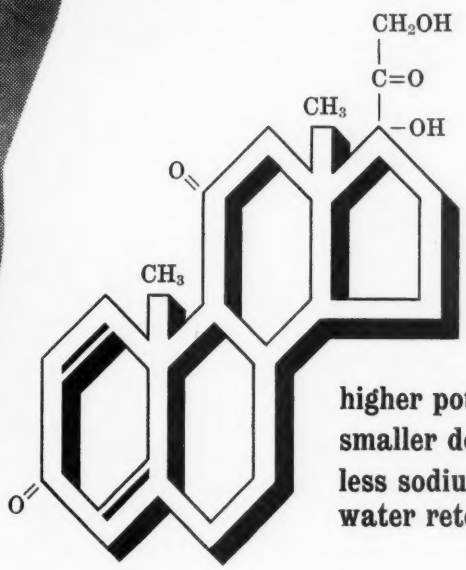
Voordat mediese praktisyns aansoek doen om enige professionele aanstelling wat in hierdie Tydskrif geadverteer word, is daar aan die hand gedoen dat hulle in verbinding moet tree met die Ere-Sekretaris van die Tak van die Mediese Vereniging in wie se gebied die betrekking val.

Publishers: Juta and Co. Ltd. P.O. Box 1010 · Johannesburg: P.O. Box 30 · Cape Town

Uitgewers: Juta en Kie. Bpk. Posbus 1010 · Johannesburg: Posbus 30 · Kaapstad



a new synthetic analog of cortisone



higher potency
smaller dosage
less sodium and water retention

Deltacortone*

(Prednisone of Merck & Co., Inc.)

tablets

A new synthetic analog of cortisone . . . provides GREATER therapeutic benefits with SMALLER doses, and AVOIDS sodium and water retention in average patient given usual recommended dosage.

Dosage Comparison (*Rheumatoid Arthritis*)

	DELTACORTONE	hydrocortisone	cortisone
Initial daily dose:	20-30 mg.	50-70 mg.	80-100 mg.
Daily maintenance dose:	5-20 mg.	30-50 mg.	50-70 mg.

DELTACORTONE has given excellent results in many instances where other corticosteroid preparations have failed.

Supplied: 5 mg. tablets (scored) in bottles of 30.

* Deltacortone is the trademark of Merck & Co., Inc., for its brand of Prednisone.

MERCK SHARP & DOHME INTERNATIONAL

Enquiries: P.O. Box 5933, Johannesburg

Medical Proceedings · Mediese Bydraes

Vol. 2 · No. 10 INDEX · INHOUD 4 August 1956 Augustus 4

Pfizer

INTERNATIONAL

medical news bulletin

Current Developments in the Fields of Antibiotics, Hormones, Nutrition and Clinical Medicine

Prepared for Physicians by the Medical Department of Pfizer International, Inc., 25 Broad Street, New York 4, N.Y., U.S.A.

Vol. III, No. 7, 1956

ANTIBIOTICS

INTRAPERITONEAL TERRAMYCIN, NEOMYCIN ''EFFECTIVE'' IN PERITONITIS - Postoperative intraperitoneal treatment with Terramycin®* (20 patients) or neomycin (18 patients) proved ''effective in diffuse pyogenic peritonitis,'' reports Schatten.[1] Both antibiotics were found to be ''nontoxic'' when given intraperitoneally for 72 hours in large doses. No intraperitoneal adhesions, indications of chemical irritation, interferences with wound healing, or detrimental effects were observed in the 38 patients during observation periods of 2 to 24 months following instillations of these antibiotics in a concentration of 2 mg./ml. Author believes the ''markedly high levels'' of Terramycin and neomycin in the peritoneal fluid ''. . . that occurred following the intraperitoneal administration of each dose and diffusion of the antibiotic were responsible for sterilization of the peritoneal cavity in each of these cases.''

TERRAMYCIN AND PENICILLIN EFFECTIVE IN TETANUS - ''For injured individuals who have not been previously actively immunized, Terramycin and probably penicillin alone appear to offer greater degrees of protection than tetanus antitoxin alone,'' conclude Anwar and Turner.[2] ''. . . combined in vitro and in vivo experiments indicate that Terramycin is more effective against Cl. tetani than the other antibiotics tested, with penicillin exhibiting a probably useful range of effectiveness.'' Both antibiotics have a bactericidal action on the vegetative forms of the organism. ''The dosages which proved effective in the experimental disease are within the limits of the usual doses of these antibiotics in man.'' Authors therefore believe that ''. . . administration of one of these antibiotics, in addition to tetanus antitoxin would seem to be a rational procedure in cases of clinical tetanus.''

VIOMYCIN** IN TUBERCULOSIS - ''Viomycin, 2.0 Gm. twice weekly, is a satisfactory agent for use in combination with PAS or isoniazid,'' state Sturgis and colleagues,[3] ''when the patient is intolerant or tubercle bacilli [are] resistant to other agents.'' Terramycin ''. . . may serve as a substitute for PAS.'' (For use of Terramycin as a substitute for PAS see Antibiotics Newsletter August 1, 1954, page 1: ONCE-WEEKLY STREPTOMYCIN EFFECTIVE IN TB.)

*Brand of oxytetracycline.
**Available from Pfizer as Viocin.®

CARDELMYCIN: A NEW PFIZER ANTIBIOTIC

Cardelmycin (generic name novobiocin), announced by Pfizer in 1955 and formerly referred to as PA 93, is derived from a newly discovered species of Streptomyces. The drug appears ''to be of possible use in the treatment of some of the most troublesome infections that are now encountered and for which existing chemotherapy is frequently of little value.''[4] The evaluation of novobiocin in a series of 30 patients with pneumococcal pneumonia ''has shown it to be clinically effective and well tolerated when administered orally.'' Limson and Romansky[5] obtained high concentrations of the antibiotic in the serum following cumulative oral novobiocin in doses of 500 mg. q. 6 h.

ADJUNCTIVE PENICILLIN USEFUL IN BACTERIAL ASTHMA - In a preliminary study, Szanton and colleagues[6] report on the adjunctive effect of benzathine repository penicillin in 17 children with bacterial asthma. The antibiotic was administered intramuscularly, 1,200,000 U. at four-week intervals in addition to specific hyposensitization injections. Thirteen children serving as controls did not receive the antibiotic. Of 17 treated patients, 9 ''. . .were improved, as evidenced by decreased incidence of both asthmatic and respiratory attacks; five showed decreased incidence of asthmatic attacks only. . . .'' In contrast, only 2 of the 13 controls ''showed improvement.''

ANTIBIOTICS AROUND THE WORLD

AUSTRIA: TERRAMYCIN ''OUTSTANDING'' IN SEPTIC THROMBO-EMBOLISM - Oral Terramycin shows a ''remarkably rapid and lasting effect'' in thrombo-embolic processes, state Horányi and Ferkó (U. Vienna).[7] The antibiotic effected without exception ''outstanding'' results in 7 patients with severe septic thrombosis and thromboembolism, nonresponsive to other broad-spectrum antibiotics. Terramycin exercised a ''. . .very favorable influence not only on the basic disease, but also on the complications....'' One patient became ''afebrile and asymptomatic'' after the 3rd day of treatment, ''...the thrombophlebitis improved with remarkable rapidity, and clinical signs of lung embolism were no longer seen.''

FRANCE: IN ORCHITIS PAROTIDEA, TETRACYCLINE ''...exercised a very favorable effect ...'' and produced '' complete cure'' in all patients (16) treated by Darbon and Girier.[8] ''...suppression of pain, reduction of testicular swelling, (and) apyrexia'' were obtained in from 2 to 4 days. (In 20 other patients who had received 5 mg. of diethylstilbestrol, response was much slower.) ''These results obtained by antibiotic treatment with tetracycline have caused'' the authors '' to prescribe tetracycline routinely from now on in all cases of mumps in young adults, in order to prevent orchitic complications.'' [See note below]

FRANCE: TETRACYCLINE ''PROTECTOR'' ANTIBIOTIC IN VARIOUS INFECTIONS - ''The good tolerance to tetracycline, its wide antibacterial spectrum, make it one of the 'protector' antibiotics of choice in malignant hemopathies, virus complications, anti-inflammatory hormone therapies.'' Darbon and Girier[9] treated 113 patients with various infections for up to 4-10 days with oral or intramuscular tetracycline. Treatment brought ''excellent results'' in 56 of 62 respiratory infections, a ''definitive cure, without relapse'' in brucellosis, ''...end of dysenteric syndrome and disappearance of amebae from the stools....'' ''Very favorable action'' and ''total cure'' were also observed in viral urethritis and Reiter's syndrome.

NOTE 1: Topical hydrocortisone available as Cortril®* Topical Ointment. 1.0% (10 mg.) in 1/6 oz. tubes; and 2.5% (25 mg.) in 1/6 oz. tubes.

*Trademark

AUSTRIA: USE OF TETRACYCLINE ''ENCOURAGING'' IN PARATYPHOID-B CARRIERS - ''The antibacterial effect of tetracycline and its derivatives on the liver and hepatic ducts has been demonstrated in animal experiments, and clinically.'' Gorlitzer v. Mundy[10] reports ''encouraging'' results with tetracycline treatment in a persistent carrier of paratyphoid-B. Dosage: Initially, 250 mg. q. 6 h. for 4 days. When stools later became positive, 250 mg. q. 6 h. for 8 days was given, followed by a 2-week rest period. Finally, 250 mg. q. 6 h. was given for an additional 4 days of therapy. ''Since then, all 10 stool control tests have been negative....''

NOTE: Pfizer-discovered Tetracycline is offered as Tetracyn.

BIBLIOGRAPHY

1. Schatten. W. E.: Surg., Gynec. & Obst. 102:339 (March) 1956.
2. Anwar, A. A., and Turner, T. B.: Bull. Johns Hopkins Hosp. 98:85 (Feb.) 1956.
3. Sturgis, C. C.: Davenport, F. M.; Davey, W. N.; Hoobler, S. W.; Johnston, F. D.; Pollard, H. M., and Sheldon, J. M.: J. Michigan M. Soc. 55:154 (Feb.) 1956.
4. Lubash, G.; Van Der Meulen, J.; Berntsen, C., Jr., and Tompsett, R.: Antibiotic Med., in press.
5. Limson, B. M., and Romansky, M. J.: Antibiotic Med., in press.
6. Szanton, V. L.; Cohen, H., and Rapaport, H. G.: Ann. Allergy 14:30 (Jan.-Feb.) 1956.
7. Horányi, M.. and Ferkó, S.: Wien. med. Wchnschr. 106:152 (Feb. 18) 1956.
8. Darbon, A., and Girier, L.: Presse méd. 64:202 (Feb. 4) 1956.
9. Darbon, A., and Girier, L.: Ibid.
10. Gorlitzer v. Mundy, V.: Med, Klin. 51:217 (Feb. 10) 1956.

HORMONES

BRAZIL: PREDNISOLONE, PREDNISONE ''REMARKABLE'' IN DERMATOSES - Treatment with prednisolone (20 patients) and prednisone (60 patients) elicited ''remarkable'' results in various dermatoses, says Alcântara Madeira.[1] Dosage was generally one tablet (5 mg.) q. 2 h. or q. 3 h. for 12 to 30 days, in addition to topical treatment of lesions. The steroid therapy effected ''. . .cure of eczematous processes, with complete disappearance of pruritus, of serous secretions, and of any other manifestations of an allergic nature'' in all patients. ''The magnificent tolerance of all patients to the preparations being evaluated must be emphasized here. . . .''

[SEE NOTE BELOW]

FRANCE: PREDNISONE SUPPRESSES DYSPNEA IN ASTHMA - ''Prednisone. . .has the double advantage of being usable in much smaller doses than cortisone, and of not bringing about edematous or hypertensive accidents.'' Vallery-Radot and colleagues[2] obtained ''remarkable'' results with the steroid given buccally to 16 patients with severe asthma. Paroxysms of dyspnea disappeared in less than 3 days and all patients regained their ability to sleep after 24-48 hours of treatment; '' total suppression of dyspnea'' was obtained in 6 days, at the latest.

ANTIRHEUMATIC STEROIDS ''COMPLEMENT RATHER THAN COMPETE WITH EACH OTHER'' - Prednisolone and prednisone ''. . .represent an important step toward the development of an ideal suppressive drug for rheumatoid arthritis and other diseases responsive to adrenocortical hormones.'' Boland[3] used these 2 steroids and hydrocortisone interchangeably in a comparison study of 141 patients with active rheumatoid arthritis involving multiple peripheral joints. '' It would appear that each of the antirheumatic steroids. . .has a place among our therapeutic resources and that they complement rather than compete with each other.'' Author suggests that prednisolone and prednisone should be ''drugs of preference'' when salt and

water retention is an actual or potential problem; hydrocortisone, on the other hand, ''should be indicated in patients who have history of peptic ulcer'' or gastric irritation.

PREDNISOLONE, PREDNISONE ''STRIKING'' ANTIRHEUMATIC AGENTS - Neustadt and colleagues[4] obtained a ''striking anti-rheumatic effect'' with prednisolone or prednisone in 13 of 17 patients with active rheumatoid arthritis (one of them with ankylosing spondylitis). ''Rapid'' clinical response and a ''striking subjective improvement'' occurred within 24 hours; objective improvement was observed within 2 to 7 days. ''Abnormal sedimentation rates and reversed albumin-globulin ratios were restored to normal or near normal levels in the majority of patients.''

BRAZIL: HYDROCORTISONE OINTMENT ''FAVORABLE'' IN DERMATOSES - Bernhard[5] says hydrocortisone acetate ointment ''. . .is of great usefulness in pruritic inflammatory dermatoses, being the medication of choice in contact and atopic dermatitis (including infantile eczema), in circumscribed neurodermatitis, palpebral eczema, eczema nummulare, and in essential ano-genital pruritus.'' Most patients were first treated with a 2.5% and then with a 1% ointment. The treatment produced ''favorable'' results in 45 of 51 patients with various skin diseases, 32 of these showing an excellent response. (See note 1 below.)

NOTE: Prednisolone supplied by Pfizer as Deltacortril®* Tablets, white, scored, 5 mg. tablets, bottles of 10, 20 and 100; in the familiar Pfizer oval shape.

*Trademark

BIBLIOGRAPHY

1. Alcântara Madeira, J.: Hospital, Rio de Janeiro 49: 209 (Feb.) 1956.
2. Vallery-Radot, P.; Laroche, C., and Bonner de la Tour, J.: Presse méd 64:273 (Feb. 15) 1956.
3. Boland, E.W.: J.A.M.A. 160:613 (Feb. 25) 1956.
4. Neustadt, D. H.; McClendon, R.; Olash, F. A., and Best, M.: J. Kentucky State M. A. 54:131 (Feb.) 1956.
5. Bernhard, A.: Hospital, Rio de Janiero 49:219 (Feb.) 1956.

MEDICAL PROCEEDINGS

MEDIESE BYDRAES

A South African Journal for the Advancement of Medical Science

'n Suid-Afrikaanse Tydskrif vir die Bevordering van die Geneeskunde

P.O. Box 1010 · Johannesburg

Posbus 1010 · Johannesburg

Vol. 2 4 August 1956 Augustus 4 No. 10

EDITORIAL · REDAKSIONEEL

CORONARY HEART DISEASE AND DIETARY PATTERN

There is now a considerable amount of evidence, including that derived from local studies on the Bantu,[1,2] which indicates that there is a correlation between fat intake, blood lipid levels (serum cholesterol concentration and lipo-protein picture) and atherosclerosis. By appropriate dietary treatment (either fat reduction or alteration in the type of fat consumed) it is now possible, speaking generally, for adults to achieve a 'younger' or more favourable blood lipid picture. The widespread hope, therefore, is that such a change, if sustained, may retard (directly or indirectly) the development of atherosclerotic lesions, and hence slow down the high and still mounting death rate from coronary artery disease.

This achievement is certainly a step in the right direction, but whether it will markedly diminish the incidence of degenerative heart disease, only time will show. Some workers question whether it is justifiable to expect too much anti-atherosclerotic response from altering the diet *only* in so far as the amount or type of fat consumed. Walker[3] (of the South African Institute for Medical Research)

1. Walker, A. R. P. and Arvidsson, U. B. (1954): J. Clin. Invest., **33**, 1358.
2. Higginson, J. and Pepler, W. J. (1954): *Ibid.*, **33**, 1366.
3. Walker, A. R. P. (1955): Lancet, **1**, 565.

KORONÊRE HARTKWAAL EN DIE DIEETPATROON

Daar is tans heelwat getuienis, insluitende dié wat ontleen is aan die plaaslike navorsingswerk onder Bantoes,[1,2] wat daarop dui dat daar 'n korrelasie bestaan tussen vet-opneming, die bloed-lipied-peil (serum-cholesterol-konsentrasie en lipo-proteïen-beeld) en aterosklerose. Deur geskikte dieetkundige behandeling (òf 'n vermindering van die vet, òf 'n verandering in die soorte vet wat verbruik word) is dit tans oor die algemeen vir volwassenes moontlik om 'n ‚jonger' of gunstiger bloed-lipied-beeld te bewerkstellig. Allerweë word daar derhalwe gehoop dat as so 'n verandering volgehou kan word, dit die ontwikkeling van aterosklerotiese letsels regstreeks of onregstreeks sal vertraag, en gevolglik die hoë en nog steeds stygende sterftesyfer ten gevolge van koronêre slagaarkwaal sal teëwerk.

Hierdie prestasie is beslis 'n stap in die regte rigting, maar of dit 'n opvallende vermindering in die voorkoms van ontaardingshartkwaal sal meebring, sal ons nog moet besien. Sommige werkers twyfel of dit geregverdig is om te veel anti-aterosklerotiese

1. Walker, A. R. P. en Arvidsson, U. B. (1954): J. Clin. Invest., **33**, 1358.
2. Higginson, J. en Pepler, W. J. (1954): *Ibid.*, **33**, 1366.

suggests that a favourable blood lipid picture may well have to lie *within* a particular dietary framework or pattern before the lipid picture can be credited with protective significance in regard to atherosclerosis. He states that with the Bantu, among whom severe atherosclerosis is rare, a low fat intake is but one feature of their dietary pattern. Although probably adequate in calories and gross protein, it is low in animal protein, cholesterol, sugar, certain vitamins and mineral salts, but high in carbohydrate and crude fibre. He also points out that among these people, although there is a high incidence of liver disease, there is a low incidence not only of atherosclerosis, but of appendicitis, eclampsia, peptic ulcer, diabetes, cholelithiasis and certain types of cancer. If, indeed, the patterns of diet and of certain diseases are related, then manipulation of dietary fat intake only, although accompanied by a favourable response in blood lipid levels, may not be as effective as anticipated. Walker and Bersohn have developed this thesis further.[4] They reason that if their views are valid, then White consumers of the Bantu pattern of diet should show a low incidence, not only of atherosclerosis, but probably also of the other diseases mentioned. To test their views, these workers refer, firstly, to the diet of our forefathers a few generations ago. Their diet was very high in lightly milled cereal products (1-2 lb. bread were consumed daily) and, in consequence, very high in crude fibre. The diet was low in animal protein, sugar, fat, cholesterol, and high in carbohydrate foods, especially bread and potatoes. Secondly, they refer to the war-time diet in certain European countries, when considerable increases occurred in the consumption of brown bread, potatoes and vegetables, with reductions in the consumption of animal protein foods, fatty foods and sugar. They demonstrate that within the limits of the admittedly incomplete information available, the death rates from coronary heart disease, appendicitis and diabetes were roughly such as might have been expected. Presumably, in a further paper, eclampsia and cholelithiasis will be discussed. These workers draw attention also to the unexpectedly satisfactory level of good health maintained by a number of the war-time populations consuming the type of diet described. They quote several authorities in support of their views. For example, Professor Fleish (who was in charge of the rationing in Switzerland) stated:

4. Walker, A. R. P. and Bersohn, I. (1956): *O Medico*, Porto.

reaksie te verwag van 'n verandering van dieet *slegs* wat betref die hoeveelheid vet wat verbruik word. Walker[3] (van die Suid-Afrikaanse Instituut vir Mediese Navorsing) doen aan die hand dat 'n gunstige bloed-lipied-beeld bes moontlik *binne* 'n besondere dieetkundige raamwerk of patroon sal moet lê voordat enige beskermende betekenis, vir sover dit aterosklerose betref, aan die lipied-beeld toegeskryf sal kan word. Onder die Bantoes, waar ernstige aterosklerose 'n seldsame verskynsel is, sê hy, is 'n lae vet-opname maar net een kenmerk van hul dieetpatroon. Hoewel dit waarskynlik voldoende kalorieë en bruto-proteïene bevat, toon dit 'n tekort aan dierlike proteïene, cholesterol, suiker, sekere vitamiene en mineraalsoute. Daarenteen bevat dit veel koolhidrate en ru vesel. Hy wys ook op iets anders. Hoewel lewerkwaal veelal onder hierdie mense voorkom, is nie alleen aterosklerose nie maar ook blindedermontsteking, eklampsie, peptiese swere, suikersiekte, galsteensiekte en sekere soorte kanker seldsame verskynsels. As daar inderdaad 'n verband is tussen die dieetpatroon en sekere siektes, dan sal die manipulasie van die dieetkundige vet-opname alleen miskien nie so doeltreffend wees at wat verwag is nie, al gaan dit ook vergesel van 'n gunstige reaksie in die bloed-lipied-peil. Walker en Bersohn het hierdie stelling verder ontwikkel.[4] Hulle redeneer dat as hul sienswyse geldig is, daar min gevalle van aterosklerose en waarskynlik ook van die ander genoemde siektes behoort voor te kom onder blankes wie se dieet met die Bantoe-patroon ooreenstem. Om hul sienswyse te toets, verwys hierdie werkers in die eerste plaas na die dieet van ons voorvaders 'n paar geslagte gelede. Hierdie dieet het uit 'n groot hoeveelheid liggies gemaalde graanprodukte bestaan (1-2 pond brood is daagliks verbruik), en het gevolglik 'n besonder groot hoeveelheid ru vesel bevat. Hul dieet het min dierlike proteïene, suiker, vet, en cholesterol bevat, maar veel koolhidraatvoedselsoorte, veral brood en aartappels. In die tweede plaas verwys hulle na die oorlogstydse dieet in sekere Europese lande waar daar 'n aansienlike vermeerdering was in die hoeveelhede bruinbrood, aartappels en groente wat gebruik is, met 'n gelyktydige vermindering in die verbruik van dierlike proteïene, vetterige voedselsoorte en suiker. Hulle toon aan dat binne die perke van die beskikbare inligting wat,

3. Walker, A. R. P. (1955): Lancet, **1**, 565.
4. Walker, A. R. P. en Bersohn, I. (1956): *O Medico*, Porto.

'The large quantities of fat consumed before the war (100 g. and more per day) are not only not necessary, but even injurious. A large part of the meat and eggs eaten before the war, and a large part of the refined food, such as cooking fat, sugar, white bread, macaroni, etc. can advantageously be replaced for health reasons by potatoes, vegetables, fruit and darker bread. To-day, the world is imbued with the spirit that an agreeable taste goes hand in hand with biological value. The food of peace-time (which was concentrated, strongly refined and rich in protein) flatters the palate, but is not the optimum for the organism.'

In brief, Walker and Bersohn postulate that only by making alterations in the total pattern of diet can one predict with any degree of confidence a fall in atherosclerotic disease, plus concomitant benefits in respect of the other diseases mentioned, and improvements in the general health picture. The extent of the beneficial effect will depend, of course, wholly on the degree of the changes made. The authors present the foregoing persuasively, and it would seem that their views can be modified or disproved only by citing population groups habituated to such a diet, but still with a high incidence of coronary heart disease. Whether the beneficial changes in respect of atherosclerosis and so forth are ascribable to changes in fat intake only, or to fat and other components, or to changes in *total* dietary pattern, remain, of course, to be determined. These workers believe, *inter alia,* that a high intake of crude fibre may well be of immense importance. They adduce evidence that a diet high in crude fibre leads to the voiding of stools high in faecal fat, in faecal sterolic compounds, and is associated with a different intestinal microflora from that found with a low residue diet. Walker and Bersohn, moreover, point out that other workers have correlated a high intake of crude fibre with a low incidence of appendicitis and of eclampsia.

If the conception of Walker and Bersohn is correct, then recent advances in regulating blood lipids by means of unsaturated fatty acids or concentrates, may well be of less importance than might initially be believed. Recently Ancel Keys[5] derisively ridiculed those who entertain the view that the coronary heart problem may be solved, without retreating from present high fat diets, merely 'by taking a daily swig of linoleic acid and a few vitamin pills'. Keys obviously considers that the *only* approach compatible with every-day

5. Keys, A. (1955): Lancet, **1**, 576.

soos geredelik toegegee word, onvolledig is, die sterftesyfer ten gevolge van koronêre hartkwaal, blindedermontsteking en suikersiekte ongeveer ooreengestem het met wat 'n mens kon verwag. Vermoedelik sal eklampsie en galsteensiekte in 'n verdere referaat bespreek word. Hierdie werkers vestig die aandag verder op die onverwags bevredigende peil van gesondheid wat gehandhaaf is deur 'n aantal oorlogstydse bevolkings wat die hierbogenoemde dieet verbruik het; en om hul sienswyses te staaf, haal hulle die menings van etlike gesaghebbendes aan. Prof. Fleish wat in bevel van rantsoenering in Switserland was, sê byvoorbeeld:

‚Die groot hoeveelhede vet wat voor die oorlog verbruik is (100 g. en meer per dag) is nie alleen onnodig nie, maar selfs skadelik. 'n Groot hoeveelheid van die vleis en eiers wat voor die oorlog geëet is, en 'n groot persentasie van die verfynde voedselsoorte soos kookvet, suiker, witbrood, macaroni, ens., kan met voordeel en om gesondheidsredes vervang word met aartappels, groente, vrugte en donkerder brood. Die wêreld verkeer vandag onder die indruk dat 'n aangename smaak hand aan hand met biologiese waarde gaan. Vredestydse voedsel (wat gekonsentreer, sterk geraffineer en ryk aan proteïene was) vlei misdien die smaak, maar is nie die heilsaamste vir die organisme nie.'

Kortom, Walker en Bersohn sê dat slegs deur verandering in die algehele patroon van die dieet aan te bring, sal dit moontlik wees om met 'n mate van sekerheid 'n daling te voorspel in die aantal gevalle van aterosklerotiese siekte, plus die daarmee gepaard gaande voordele ten opsigte van die ander genoemde siektes, en verbeterings in die algemene gesondheidsprentjie. Die omvang van die heilsame effek sal natuurlik geheel en al afhang van die mate van verandering wat aangebring word. Die skrywers bied die voorafgaande op 'n oortuigende wyse aan, en dit lyk amper asof hul argumente alleen gewysig of ontsenu sal kan word deur gevalle aan te haal van bevolkingsgroepe wat gewoond aan so 'n dieet is, maar onder wie daar nog steeds 'n groot aantal gevalle van koronêre hartkwaal voorkom. Of die heilsame veranderings ten opsigte van aterosklerose ensovoorts toegeskryf moet word aan veranderings in die vet-opname alleen, of aan vet en ander bestanddele, of aan veranderings in die *algehele* dieetkundige patroon, sal natuurlik nog vasgestel moet word. Hierdie werkers glo, onder meer, dat 'n hoë ru-vesel-opname bes moontlik van die allergrootste belang kan wees. Hulle lê getuienis voor dat 'n dieet wat uit 'n groot hoeveelheid ru vesel bestaan aanleiding gee tot die afskeiding van ontlasting wat veel fekale vet, in fekale steroliese samestelings, bevat, en geassosieer is met 'n ander soort ingewandsmikroflora as dié wat aangetref word in die geval van 'n laë-residu-dieet. Walker en Bersohn wys ook daarop dat ander werkers 'n hoë opname van ru vesel in verband gebring het met die voorkoms van

Western nutritional habits is to reduce considerably the total fat intake, no matter from what sources it may be derived. Walker and Bersohn thus go further, believing that the *maximum* anti-atherosclerotic effect of fat restriction may *not* be reached unless concomitant dietary changes are made in the manner already described.

Walker and Bersohn do not maintain, of course, that the pattern of diet discussed is the *only* pattern consistent with a low or reduced incidence of severe atherosclerosis. Other effective patterns of diet presumably obtain among the Eskimos, Yukonese, Yemenites, Cypriots and others known to have a high fat diet, but who are believed to have a low incidence of degenerative heart disease. The latter, of course, remains to be proved, not by clinical examination only (with its known limitations), but also by determinations of the age trend and pattern of atherosclerotic lesions, such as were undertaken in the comprehensive pathological studies carried out by Becker[6] and Higginson and Pepler[2] on the Johannesburg Bantu. But even if the populations mentioned suffer little from the severe complications of atherosclerosis, as present information suggests, their pattern of diet is so far removed from that of the every-day diet of Western populations, that the findings will be virtually irrelevant in so far as practical application to White South Africans is concerned.

It must be emphasized that although Walker and Bersohn appear to be the first workers to give practical application to the concept of associated patterns of diet and disease, in so far as the present problem is concerned, the conception is not new. Gillman *et al.* have for long inveighed against the fragmentation of the subjects of diet and disease, as e.g. in a recent contribution[7] entitled *Diet and its Relationship to the Diseases of Man.*

No doubt, for some considerable time to come, there are likely to be wide differences of opinion, not only about the aetiology of coronary heart disease, but also about the means to combat this twentieth century scourge. This is all to the good. Truth is more likely to emerge from competitive clashes of opinion than from a passive reliance on the dictates of an obsolescent authority.

6. Becker, B. J. P. (1946): S. Afr. J. Med. Sci., **11**, 47.
7. Gillman, J. (1955): S. Afr. J. Sci., **52**, 91.

'n geringe aantal gevalle van blindedermontsteking en eklampsie.

As die opvattings van Walker en Bersohn korrek is, kan die onlangse vordering wat gemaak is met die regulering van bloed-lipiede deur middel van onversadigde vetsure en konsentrate miskien van minder belang wees as wat aanvanklik vermoed is. Ancel Keys[5] het onlangs die spot gedryf met diegene wat die mening toegedaan is dat die probleem van koronêre hartkwaal opgelos kan word, sonder om die huidige hoë-vet-diëte te versaak, deur bloot, 'n daaglikse dosis lynoliesuur en 'n paar vitamienpille te neem.' Keys gaan klaarblyklik van die standpunt uit dat daar net *een* benadering is wat met die alledaagse Westerse voedingsgewoontes vereenselwig kan word, en dit is om die totale opname van vet, uit watter bron daardie vet ook al kom, aansienlik te verminder. Walker en Bersohn gaan dus verder, want hulle glo dat die maksimum-anti-aterosklerotiese effek van vetbeperking bes moontlik *nie* bereik sal word nie, tensy daarmee gepaard gaande dieetveranderings op die hierbo beskrewe manier aangebring word.

Walker en Bersohn beweer natuurlik nie dat die dieetpatroon soos reeds bespreek, die *enigste* patroon is wat met 'n klein of verminderde aantal gevalle van ernstige aterosklerose vereenselwig kan word nie. Ander doeltreffende dieetpatrone sal vermoedelik aangetref word onder die Eskimo's, die inwoners van die Yukon, die Jemeniete, die Sipriotte en ander bevolkingsgroepe wat, soos goed bekend, groot hoeveelhede vet verbruik, maar onder wie daar vermoedelik min gevalle van ontaardingshartkwaal is. Laasgenoemde sal natuurlik nog bewys moet word, nie alleen deur kliniese ondersoek (met sy bekende beperkings) nie, maar ook deur die vasstelling van ouderdomsneigings en die patroon van die aterosklerotiese letsels, soos onderneem in die omvattende patologiese ondersoek van die Bantoes in Johannesburg deur Becker[6] en Higginson en Pepler.[2] Maar selfs al ly die genoemde bevolkingsgroepe ook min aan die ernstige komplikasies van aterosklerose, soos deur die huidige inligting aangedui, is die patroon van hul dieet so verskillend van die alledaagse dieet van die Westerse mense dat die bevindings feitlik nie ter sake is vir sover dit praktiese toepassing op blanke Suid-Afrikaners betref nie.

Daar moet beklemtoon word dat hoewel Walker en Bersohn skynbaar die eerste werkers is wat die begrip van geassosieerde dieet- en siektepatrone in die praktyk toepas vir sover dit die huidige probleem betref, die begrip self nie nuut is nie. Gillman, *et al.* vaar lank reeds uit teen die splitsing van die onderwerpe van dieet en siekte—bv. in 'n onlangse bydrae getiteld *Diet and its Relationship to the Diseases of Man.*[7]

Sonder die minste tywfel sal daar nog lank groot meningsverskil bestaan nie alleen oor die etiologie van hartkwaal nie, maar ook oor die middele wat byderhand geneem moet word om hierdie twintigste eeuse plaag te bestry. Dit kan net heilsaam wees. Dis baie waarskynliker dat die waarheid uit botsende menings sal voortspruit as uit gedweë vertroue op die voorskrifte van 'n verouderde gesag.

5. Keys, A. (1955): Lancet, **1**, 576.
6. Becker, B. J. P. (1946): S. Afr. J. Med. Sci., **11**, 47.
7. Gillman, J. (1955): S. Afr. J. Sci., **52**, 91.

ACTINOMYCOTIC CANALICULITIS

I. B. TAYLOR, M.B., B.Ch. (Rand), D.O.M.S. (R.C.P. & S.), F.R.C.S. (Eng.)
Tara Hospital, Johannesburg

A watering eye is one of the commonest complaints in ophthalmology. In his review of the causes of epiphora, Appleton[1] mentioned only the commoner conditions, but omitted inflammation of the canaliculi. This may not be rare enough to be excluded from the list, as recent reports testify to its common occurrence.

Von Graefe[2] first described inflammation of the lacrimal canaliculi (canaliculitis) in 10 cases of fungus infection with the formation of concretions in the canaliculi. The disease has since become well recognized, though reports of its incidence vary. Thus in 1902 Kipp[3] could collect only 3 cases out of 101,000 eye conditions treated in 21 years. Zolog[4] in 1948 described one case and concluded that the disease is relatively rare in ocular pathology.

In 1952, however, Gibson Moore[5] collected 6 cases seen over 2 years. In 1953 Smith[6] reported 15 cases, of which 3 were males. Eleven different strains of Actinomyces were isolated and it was concluded that the organisms were most closely allied to *Actinomyces israeli*.

The increase in incidence of fungus infection of the canaliculi is undoubtedly due to the increase in the local use of antibiotic medication. This causes suppression of normal as well as pathological bacterial flora, as is well known in other cavities and tubes of the body.

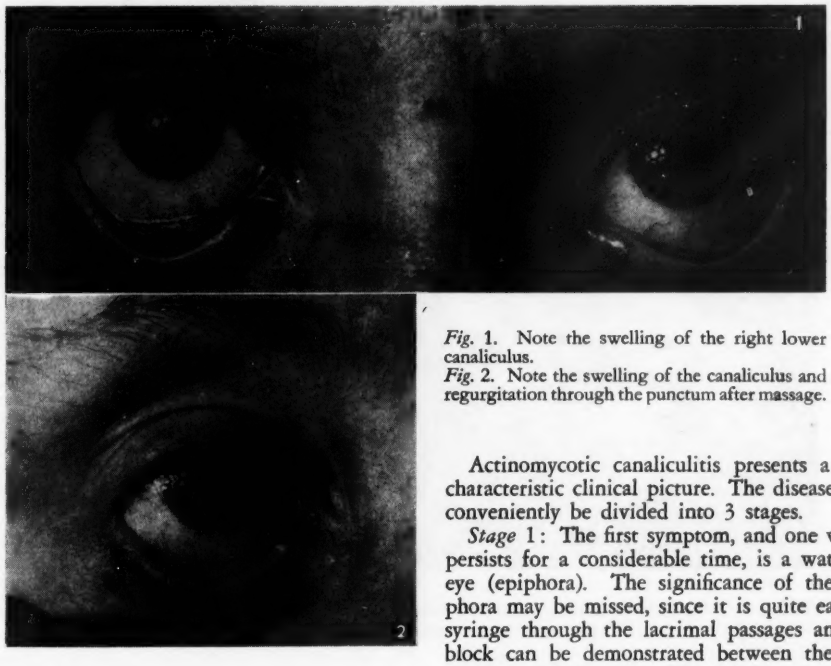


Fig. 1. Note the swelling of the right lower canaliculus.
Fig. 2. Note the swelling of the canaliculus and regurgitation through the punctum after massage.

Actinomycotic canaliculitis presents a very characteristic clinical picture. The disease may conveniently be divided into 3 stages.

Stage 1: The first symptom, and one which persists for a considerable time, is a watering eye (epiphora). The significance of the epiphora may be missed, since it is quite easy to syringe through the lacrimal passages and no block can be demonstrated between the tear passages and the nose. The epiphora is generally accompanied by conjunctivitis, most marked around the inner canthus, frequently showing follicular reaction in the later stages. The conjunctivitis is usually accompanied by much stringy secretion and annoying itching. The latter is characteristic and resistant to the

usual forms of treatment. Occasionally a flare-up occurs and the conjunctivitis may become purulent and quite acute. The acute flare-up usually responds promptly to antibiotic therapy, but the chronic itch and stringy discharge remain.

If the upper punctum is affected, the condition is frequently missed, the conjunctivitis being treated for many years without result.

Stage 2: In the second stage, which may appear after many years, localizing symptoms appear. The punctum itself now becomes congested and prominent, with pouting lids. Sometimes the whole region becomes red and swollen. This is most evident if the upper punctum is affected. The swollen appearance often gives rise to a diagnosis of meibomian cyst, stye, sebaceous cyst or tumour of the lid.

Stage 3: In the final stage purulent and inflammatory symptoms predominate in the surrounding area. Pressure over the swollen mass extrudes a creamy or purulent discharge from the dilated orifices of the puncta. Even to the last the canaliculus can be syringed through and a fine probe passed without trouble, although it may be felt to grate against a concretion.

Spontaneous cure is unknown. In the absence of adequate treatment the condition persists indefinitely. Actinomycotic canaliculitis should be remembered in every case of unexplained, persistent weeping.

CASE REPORT

Miss A. M. v. R, aged 16, was admitted to Tara Hospital on 19 November 1955 with a provisional diagnosis of ? post-encephalitic state. The significant ocular history was of a watering right eye following a severe bout of fever in October 1954, and recurrent attacks of inflammation in that eye. She had been treated with eye drops on numerous occasions, with only slight relief.

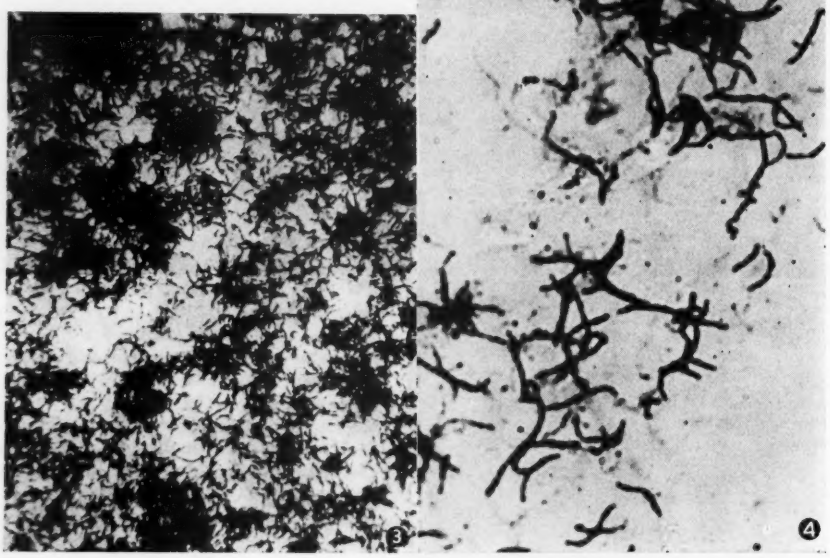


Fig. 3. Photomicrograph of a culture of *Actinomyces israeli* (X535).
Fig. 4. A higher magnification of the culture of *A. israeli* (X1250).

The right eye showed congestion of the bulbar conjunctiva near the inner canthus. The lower lid was red and swollen medially; the lower punctum was prominent and pouting. On massage of the lower canaliculus a yellowish purulent secretion with a few solid particles was extruded from the lower punctum. There was no regurgitation on pressing over the tear sac. The left eye was normal (Figs. 1, 2).

A provisional diagnosis of canaliculitis was made, probably actinomycotic, and the pus was sent to the laboratory for smear examination and culture.

LABORATORY REPORTS

1955

22 November: *Blood Examination.* Haemoglobin, 15.3 g. %; Erythrocytes, 5,240,000 per c.mm.; Leucocytes, 6,100 per c.mm.

24 November: The modified Ide test was negative.

1 December: Direct microscopic examination of pus from the canaliculus showed the presence of branching fungal hyphae resembling Actinomyces.

7 December: Culture resulted in a growth of *Actinomyces israeli* (Figs. 3, 4.)

Treatment. The punctum was dilated and split for 2 mm., sufficient to admit a small meibomian curette. The canaliculus was curetted and found to be enormously dilated and filled with concretions. In the next few days her symptoms disappeared and have not recurred.

The simple treatment used in this case is the only effective form of treatment. Some authors recommend injection of penicillin round the canaliculus, but Gibson Moore found this ineffective. After curetting, the canaliculus may be swabbed with a solution of potassium iodide, but this is unnecessary in most cases.

SUMMARY

The literature on actinomycotic canaliculitis is briefly reviewed.

The 3 clinical stages are described.

A recent proved case is reported.

OPSOMMING

Die literatuur in verband met aktinomikotiese kanaliculitis word kortliks in oënskou geneem.

Die kliniese stadiums word beskryf.

'n Onlangse bewese geval word bespreek.

My thanks are due to Dr. Van Hoepen (who referred the case to me) for his great interest; to the Department of Medicine and the South African Institute for Medical Research for the photographs; to Dr. Lurie of this Institute for the laboratory reports, and to Dr. H. Moross, Superintendent of Tara Hospital, for permission to submit this case for publication.

REFERENCES

1. Appleton, S. C. (1955): S. Afr. Med. J., **29**, 567.
2. von Graefe (1854—1855): Cited in Duke-Elder's *Text-book of Ophthalmology*, p. 5297, Vol. V, 1952. London: Henry Kimpton Ltd.
3. Kipp, C. J. (1902): Arch. Ophthal., **31**, 395.
4. Zolog, N. (1948): Spitalul., No. 11, 370.
5. Gibson Moore, J. (1952): Brit. J. Ophthal., **36**, 522.
6. Smith, C. H. (1953): Proc. Roy. Soc. Med., **46**, 209.

THE PHYSIO-PATHOLOGY OF CUSHING'S SYNDROME

WITH AN ILLUSTRATIVE CASE

TERENCE E. LYNCH, M.B., B.CH. (RAND)*

Tara Hospital, Johannesburg

The pituitary gland develops in two distinct parts. The anterior and intermediate part is derived from Rathke's pouch in the buccal cavity, i.e. from endoderm, whereas the posterior part arises from nervous tissue or ectoderm.

In a similar way the adrenal gland has its embryonic derivation from two distinct tissues, viz. the cortex from the mesoderm and the medulla (as in the case of the posterior pituitary) from nervous tissue or ectoderm. The significance of this similarity can only be speculative at present, for in both glands the evidence is that each part is physiologically distinct.

* Senior Neuro-Psychiatric Registrar.

THE ANTERIOR PITUITARY GLAND

This gland consists histologically of 3 types of cells, unstaining chromophobes, basophils

(which stain with basic dyes) and eosinophils (which stain with acid dyes).

It is thought that the basophil and eosinophil cells are both derived from chromophobe cells. It has also been observed that when the basophil and eosinophil cells have delivered their particular secretions to the body, they once more revert to the probably non-secretory chromophobe cell type.[1] Thus it can be seen that the gland has at its disposal a mechanism for differential qualitative and quantitative secretion.

The eosinophil cells produce somatotrophic hormone (growth hormone or SHT). Clinically, excess of this hormone finds expression in gigantism or acromegaly. SHT is probably the same substance as the diabetogenic hormone of the anterior pituitary. It is thought by some to have a ketogenic effect and, in excess, stimulates fat deposition.

The basophil cells produce a variety of hormones:

1. Thyrotrophic hormone (TSH).
2. Adrenocorticotrophic hormone (ACTH).
3. Follicule stimulating hormone (FSH).

It also stimulates the seminiferous tubules in the male.

4. Luteinizing hormone (LH) in the female or interstitial cell stimulating hormone (ICSH) in the male.
5. Lactogenic hormone (probably identical with Luteotrophic hormone (LH).

3, 4 and 5 are known as the gonadotrophins.

THE ADRENAL CORTEX

This gland has several diverse functions:

i. It controls the renal tubules, stimulating the reabsorption of sodium and to a lesser extent of potassium.

ii. It regulates the metabolism of carbohydrates, fats and proteins by:

(a) A diabetogenic effect: This stimulates gluconeogenesis in the liver from amino acids and prevents the uptake of glucose in the tissues by blocking the latter's conversion into hexose phosphate.

(b) Promotion of the breakdown of tissue proteins into amino acids.

(c) Mobilization of the fat from the depots and promotion of fat breakdown into ketone bodies.

(d) Increased deposition of glycogen in the liver.

To summarize, oversecretion of the adrenals leads to a mild diabetes mellitus-like condition.

iii. The adrenal cortex is partly responsible for some secondary sexual characteristics.

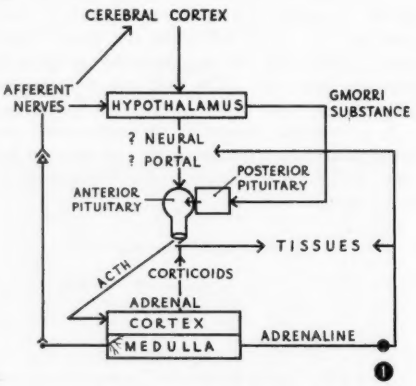
iv. The adrenal cortex controls the activity of lymphoid tissues and the blood eosinophil level.

THE PITUITARY-ADRENAL AXIS

Fig. 1 is modified from diagrams by Samson Wright,[1] by Smart,[2] and by Lopis.[3]

Stress, in its broadest sense, may bring this interacting system into activity as follows:

i. *Neural Mechanisms*: (*a*) Stimulation of the hypothalamus causes a secretion of ACTH by releasing a chemical mediator which is carried to the anterior pituitary by the local portal circulation between these structures.



(*b*) A substance (the Gmorri substance) has been found to pass in the axons themselves from the supra-optic and paraventricular nuclei of the hypothalamus down to the posterior pituitary gland. It is postulated that this is a neural mechanism of control of the pituitary gland. The subject has recently been extensively reviewed by Zuckerman.[4]

ii. *Humoral Mechanisms*: A rise in the adrenal corticoids inhibits the production of ACTH by the anterior pituitary and *vice versa.* Stress results in increased utilization of corticoids by the tissues, thus lowering their blood level and stimulating further ACTH production and so increased steroid production by the adrenals.

CUSHING'S SYNDROME

This was first described by Harvey Cushing in 1932. The following pathological conditions have all been associated with it:

1. Pituitary basophil hyperactivity.
2. Hyperadrenocorticism.
3. Hypothalamic lesions.
4. Neoplasms of the thymus gland.
5. Neoplasms of the pancreas.
6. Arrhenoblastoma of the ovary.

In most cases the primary pathology may be either in the pituitary gland or in the adrenal cortex. Secondly changes then occur in the gland not primarily affected via the pituitary-adrenal axis.

Plotz, Knowlton and Ragan[5] reviewed 189 cases from the literature and 33 cases of their own. The post-mortem findings in 97 cases showed 9 with a pituitary lesion and a normal adrenal, 6 with an adrenal lesion and a normal

pituitary. The remaining cases (where both pituitary and adrenal pathology were concurrently present) showed (in order of incidence):

24 cases of basophil adenoma of the anterior pituitary and adrenal hyperplasia;

17 cases of adrenal hyperplasia;
10 cases of adrenal carcinoma;
5 cases of adrenal adenoma;

} All these cases were associated with Crooke's hyalinization of the basophil cells of the anterior pituitary.

5 cases of chromophobe adenoma together with adrenal hyperplasia.

It is thought that the hyalinization of the basophil cells described by Crooke is secondary to a high level of circulating adrenocortical hormones. It has also been demonstrated by Castor that ACTH administration can produce changes in the paraventricular nuclei of the hypothalamus. This indicates that such changes may be secondary in a case of Cushing's syndrome, and not primary.

Plotz also lists the incidence of certain findings common to Cushing's syndrome and long-term administration of ACTH or cortisone (Table 1).

TABLE 1

	Cushing's Syndrome (%)	*ACTH or Cortisone* (%)
Cushing obesity	97	85
Elevated blood pressure	85	24
Menstrual disturbance / Impotence	75	20
Hirsutism in females	70	40
Striae	68	3
Plethoric appearance	60	23
Weakness and backache	58	36
Mental symptoms	40	36
Headaches	39	8
Acne	37	15
Ankle oedema	35	45
Poor wound healing or unusual infection	33	32
Purpura or easy bruising	30	7
Polydypsia or polyuria	28	4
Glycosuria	27	6
Exophthalmos	27	0
Virilism	—	0
Osteoporosis	—	—
Spontaneous seizures	—	—
Peptic ulcer	—	—

Plotz and his colleagues emphasize certain features additional to the usual signs and symptoms given as characteristic of Cushing's syndrome, viz. mental abnormalities, poor wound healing or unusual infection; also acne, skin pigmentation or other rashes. He lists the main laboratory findings of note as follows:

1. High erythrocyte count.
2. Low blood eosinophil count (below 100).
3. Diabetic type of glucose tolerance curve.
4. 17-ketosteroids high in adrenal hyperplasia but they may be low or normal in adrenal adenoma.
5. High 11-oxysteroid excretion.
6. A tendency to hypochloraemic hypokalaemic alkalosis.
7. Diffuse 4-7 cycles per second activity on the electroencephalogram. (This occurred in 4 out of 8 cases tested.)

Summary. The findings in Cushing's syndrome may be interpreted as follows:

1. Wasting and weakness of the skeletal muscles, especially the limbs, is due to the breakdown of muscle protein and the low level of serum potassium.

2. Obesity, moon face and fish-like mouth, buffalo hump and truncal obesity, are due to re-distribution of the fat depots under the control of the corticoids.

3. Thin skin and purplish striations are due to removal of protein matrix from the skin. Acne and hirsutism are also due to corticoid action.

4. Osteoporosis is also possibly due to loss of protein matrix in the bone with secondary decalcification.

5. Diabetes mellitus is due to the diabetogenic action of the corticoids.

6. Sexual changes are attributed to excessive oestrogen and androgen.

7. Ionic changes in the plasma are due to mineralo-corticoids acting on the renal tubules causing the retention of sodium and, to a lesser extent, of chlorides, and also lowering of serum potassium. These changes are related to the hypertension and the oedema.

The following case illustrates many of these points.

CASE REPORT

Mrs. C. P. H., a housewife aged 36 years, was admitted to Tara Hospital on 5 July 1954, complaining of increasing weight for 4 years, of headache, disturbed vision and a 'lame, dead' feeling in the legs.

She was last perfectly well 4 years ago, just before the birth of her youngest child, born in July 1950. In April 1951 her feet, hands, face and stomach had become swollen. There was no pain associated with this swelling. She was admitted to her local hospital, where her condition was thought to be due to kidney disease. She spent only 6 days in hospital.

At that time the swelling of the legs could be indented by pressure. Before the baby's birth she weighed 150-155 lb. By April 1951 her weight was 220 lb.

Her condition remained unchanged except that in 1952 she had amenorrhoea for 7 months.

She was admitted to another hospital in December 1953 and a diagnosis of Cushing's syndrome was first made. At this time she was having hot flushes. At present she feels flushed continuously and perspires excessively. Her periods have been absent since October 1953.

In February 1954 she developed 'blood poisoning' from a slight scratch on her right leg. She became delirious and had to be admitted to hospital. She recovered after 10 days, but since that time has had a 'tight' feeling in the head—like a heavy band around the front of the head. This feeling is not aggravated by coughing. Also since February 1954 she feels as if there is something in front of her eyes, especially when she bends down.

She gets tired very easily. She feels well when she gets up in the morning, but as soon as she has done a little housework her symptoms come on. Normally she is a very industrious housewife. Her legs feel numb from the knees down and occasionally she suddenly falls to the ground, because her legs collapse under her. She has had a feeling of pins and needles in the hands and feet.

For the last 2 months she has tended to become upset over trivialities. She cries a great deal and is occasionally short tempered.

She now becomes short of breath sooner than she used to, and her ankles start to swell at 10 or 11 a.m. She also bruises easily, her hair tends to fall out and she dislikes bright light.

Physical Examination. Weight, 201 lb. She is an obese, middle-aged woman with a flushed appearance. The obesity is well marked over the trunk and abdomen and above the glutei, but is present to a lesser degree in the limbs. A cervico-thoracic pad of fat (buffalo hump) is present.

There are purplish striae over the shoulder, breasts, abdominal wall and upper thighs; some of these striae are of considerable width, up to 3 inches. The skin is dry and scaly to the touch.

There is a well-marked hirsutism of the face and to a lesser extent of the chest and lower abdomen, best described as lanugo-like.

A mild dorsal kyphosis is present.

Head. The face is full, rounded and plethoric. A mild bilateral exophthalmos is present and the palpebral fissures are narrow. She has a fish-like mouth.

Cardio-Vascular System. Blood pressure, 185/120 mm. Hg; otherwise normal.

Abdomen. The liver edge is palpable 2 fingers below the right costal margin. A doubtful mass was thought to be present in the right hypochondrium. The umbilicus is everted.

Genito-Urinary System. Clitoris, normal. A cystocoele was present.

Extremities. There is slight pitting oedema over the tibiae.

Central Nervous System. A white patch is present in the right fundus. The fundal veins are dilated and the vessels silver wired.

The rest of the examination (including the visual fields) was normal.

Laboratory Investigations: *Urine.* No sugar or albumin was present.

Blood Count:
Haemoglobin, 17.6 g.%;
Erythrocytes, 5,000,000 c.mm.;
Leucocytes, 10,400 c.mm.;
Neutrophils, 69%;
Basophils, 5%;
Lymphocytes, 25%.
P.C.V. 53%. M.C.V. 94.5 cubic microns. M.C.H.C. 33.2%.
Eosinophils (wet), 11 per c.mm. After ACTH, 0 per c.mm.
17-ketosteroids 48.9 mg. in 24 hours.
17-hydroxycorticosteroids, 14.1 mg. in 24 hours.
11-oxysteroids 40 mg. in 24 hours.
Wassermann Reaction: Negative.
Insulin Tolerance: 68, 55, 47, 64, 79 mg. glucose per 100 c.c. blood.
Serum Calcium: 5.7; *Serum Sodium*: 141; *Serum Potassium*: 5.9 (in mEq. per litre).
Serum Chlorides: 102 mEq. per litre. *Serum Cholesterol*: 285 mg. per 100 c.c.
Lumbar Puncture: Pressure, 190 mm. H_2O. Total proteins, 56 mg. per 100 c.c. No cells were present.
X-Ray Examination: X-Ray films of the abdomen showed considerable enlargement of the liver shadow, and the presence of an irregular area of calcification in the right renal region. There was a second small opacity associated with the kidney shadow on the left side, which was possibly a calculus.

There were multiple secondary malignant deposits in the lungs.

Clinical Diagnosis. Cushing's syndrome.

Pathological Diagnosis. Carcinoma of the adrenal cortex with multiple metastases.

OPSOMMING

Die fisiopatologie van Cushing se sindroom word in oënskou geneem in verhouding tot 'n geval wat aan karsinoom van die bynierskors te wyte was.

I wish to thank Dr. H. Moross (Medical Superintendent of Tara Hospital) and Dr. S. M. Katz for permission to publish the case; Dr. Aldis and Dr. Politzer for the steroid estimations and Dr. R. Geerling for encouragement in preparing this paper.

REFERENCES

1. Wright, S. (1952): *Applied Physiology*, p. 949. London: Oxford Medical Publications.
2. Smart, G. A. (1954): Brit. Med. J., **1**, 1086.
3. Lopis, S. (1954): Leech, **14**, 11.
4. Zuckerman, S. (1954): Lancet, **1**, 739.
5. Plotz, C. M., Knowlton, A. I. and Ragan, C. (1953): Research Publ. Assoc. Research Nerv. Ment. Dis., 30. Baltimore.

NEUROLOGICAL DISEASES OF THE TEMPORAL BONE

MODERN SURGICAL TRENDS

D. R. HAYNES, M.B., CH.B (RAND), D.L.O. (R.C.P. & S.)
Tara Hospital, Johannesburg

The modern era in surgery of the temporal bone began with the advent of the antibiotics. Until then surgery of the temporal bone was almost limited to the surgery of acute and chronic suppuration; and although great medical men laid the foundations for many of our present technical procedures, the ever-present danger of producing an uncontrollable spread of infection into the cranial cavity prevented advances being made in what we may call metabolic disturbances of the intricate structures situated within the temporal bone.

Far from causing an ever-constricting field in otological surgery, the very usefulness of these bacteriostatic drugs has enabled us to set sail in a hitherto uncharted sea. Here one should pay tribute to such men as Sourdille, Cawthorne, Lempert and Simson-Hall, all of whom were energetic and enthusiastic enough to take the new opportunities offered in order to develop what Cawthorne has called 'neuro-otology'.

Many famous historical figures suffered from diseases which, in retrospect, can be shown fairly convincingly to have originated in the temporal bone and there is little doubt that these diseases were to some extent responsible for the course of history. If Shakespeare's *Julius Caesar* is based upon historical fact, we have evidence to suggest that the great Roman Emperor was subject to attacks of endolymphatic hydrops which, in the past, were attributed to epilepsy.

Dean Swift was almost certainly a sufferer from Ménierè's disease and to what extent this disease accounted for his irascibility and the pungency of his writings can only be conjectured.

Beethoven was a victim of otosclerosis and, since many of his finest works were produced after he became severely deaf, one cannot help speculating about the extent to which the deficiency in one sense contributed to his indefinable essence of genius.

In more modern times, we have heard of Oscar Wilde's death from a possible meningitis or brain abscess, secondary to a chronic suppurative otitis of many years' standing.

If any of these men had had the benefits of modern surgery and medicine, what further contributions might they not have made to our modern lives and cultures?

INFECTIVE DISEASES OF THE TEMPORAL BONE

Antibiotics have modified the infective diseases of the temporal bone in two respects. The formation of pus in the middle ear cavity or the mastoid is so rapidly brought under control that acute mastoiditis requiring a simple mastoidectomy has become a rare operation. Likewise, a simple myringotomy to release pus from the middle ear cavity has become a relative rarity; but there is one danger to this development that must not be overlooked. In a proportion of cases with acute otitis media, the pus in the middle ear is so rapidly sterilized that it remains locked in the cavity until it undergoes organization, when the mobility of the tympanic membrane is interfered with either by the thick sterile fluid or actual adhesion of the tympanic membrane to the wall of the promontory. Here we have a possible cause of deafness which would not be so likely if a myringotomy were performed at the same time as the antibiotics were given.

Most otologists are agreed that while the simple mastoidectomy has become a rarity, the more radical procedure has become commoner than before. The number of cases in which erosion of the whole middle ear cavity, mastoid antrum and attic by cholesteatoma occurs, with, sometimes, involvement of the labyrinth, the facial nerve or the dura of the middle or posterior fossae, is increasing.

Recently a case was diagnosed as Bell's palsy because there was no apparent disease of the middle ear on the side of the facial paralysis. It was not until 2 years after the onset of the paralysis that the man was found to be suffering from a chronic mastoiditis with extensive cholesteatoma involving the facial nerve and the tegmen tympani, with extradural abscess formation. The surgery of this condition became a neuro-otological procedure when, without the masking effect of repeated courses of antibiotics in the past, the cause of the facial palsy would have been obvious and amenable to surgical treatment at the outset.

The foregoing remarks do not, of course,

apply to certain social groups who, in the average, tend to neglect their otological disease until the condition is pathologically far advanced.

OTOSCLEROSIS

This condition is included in the neurological diseases of the temporal bone for several reasons. Although the fenestration operation is performed in an attempt to by-pass the fixation of the stapes in the oval window by the otosclerotic process, there is no doubt that we have a very good chance of avoiding the late perceptive changes in hearing that occur as this condition advances. The deafness due to otosclerosis is most amenable to help from an electrical hearing aid provided the condition does not advance too far. Theoretically, complete fixation of the stapes footplate should not produce a loss of hearing of more than about 50 decibles, but we nearly always find that an apparent perceptive loss begins to show itself when once this limit is reached; and thereafter the patient might well go on to a total loss of hearing, which goes beyond the help that a hearing aid might give.

On the other hand, if the fenestration operation is performed, this perceptive degeneration is avoided; and even if the level of hearing should be below what is understood as the 'practical level of hearing', a hearing aid will continue to be of great help.

The tinnitus associated with otosclerosis is very often a more troublesome feature of the disease than the deafness itself, especially in the early stages. Here again, although it is seldom claimed that the fenestration operation will cure the tinnitus, if the operation is successful the improved hearing appears to make the patient less conscious of the troublesome noises in his ears.

TINNITUS

In a number of diseases of the ear tinnitus is a fairly or very constant feature. It is essential that the function of the ear be completely investigated for both hearing and equilibration before the tinnitus is labelled 'idiopathic'.

If the cause of the tinnitus be found in the organ of balance or the organ of hearing, the treatment for that condition will be the treatment of the tinnitus. In this regard, I should like to say that the surgical or medical treatment of tinnitus *per se* is singularly ineffective; but in certain cases, e.g. otosclerosis, Ménierè's disease, chronic mastoiditis, tumours (glomus jugulare tumours), successful treatment of the associated symptoms will very often make the tinnitus bearable or even lead to its disappearance.

One must always bear in mind that troublesome tinnitus of unknown aetiology is likely to disappear spontaneously as mysteriously as it came and the greatest help we can give the patient in these cases is to be able to assure him that his tinnitus has no organic cause and is not a symptom of some dire intracranial disease.

Numerous surgical procedures have been suggested and performed for the relief of tinnitus, but no procedure of which I am aware is able to claim a cure in a significant proportion of cases.

Some procedures have been aimed at producing relief from symptoms through the sympathetic chain which controls the blood supply to the inner ear. From time to time I have seen patients experience some relief from their tinnitus after a stellate ganglion block with procaine and, since this is a simple procedure, it seems that it might well be justified as an experiment in any particular case. The best results I have seen have been in idiopathic tinnitus or in the tinnitus associated with Ménierè's disease. If this treatment should be successful in any particular case, it may be considered a good therapeutic test and a cervical sympathectomy will almost certainly give some permanent relief. This procedure is particularly indicated in cases of bilateral Ménierè's disease associated with a marked hearing loss and a disturbing tinnitus.

On the assumption that tinnitus was due to a disturbance of the sympathetic nervous system, Lempert suggested an operation for the destruction of the glossopharyngeal plexus in the tympanum. From the patient's point of view this is not a major procedure, although it is technically rather tedious. No great success was achieved with this operation except in those cases in which the tinnitus was related to a chronic infective process in the middle ear.

Another procedure suggested and practised by Rosen is section of the chorda tympani as it passes through the middle ear cavity. This operation was done on the assumption that the chorda tympani is the vestigial remains of the organ of hearing and that lesions of the chorda might well give rise to distortions of the hearing process. Successes from this operation are insignificant.

Other surgical operations that have been employed in an attempt to cure this troublesome condition include labyrinthectomy and section of the cochlear nerve; but these are both major undertakings and have achieved

no success. In addition, there is, of course, complete loss of hearing with either operation.

In a significant number of cases, relief from tinnitus has been achieved by prefrontal leucotomy. Apparently this does not stop the noises in the head, but the patient becomes more tolerant of them and is able to carry on his normal activities without being incapacitated. Needless to say, the patients subjected to this form of treatment would have to be carefully chosen and would naturally have to be very severely incapacitated by their disease before an operation of this magnitude is embarked upon.

MÉNIERÈS DISEASE

Ignorance of the aetiology of Ménierè's disease means that our approach to its treatment has been rather haphazard. At present the only uniformly successful surgical procedures are those in which some part of the vestibular system responsible for the vertiginous attacks is destroyed.

In the past and based on the theoretical physiology of the vestibular system, various surgical operations were designed and practised, but none met with any great success. As with tinnitus, attacks were made upon the sympathetic nervous system in an attempt to overcome constriction of the arterial blood supply to the labyrinth. It is not certain that this occurs even when the sympathetic nervous system is blocked; and even if we could be sure that vasoconstriction within the labyrinth did occur as a result of sympathetic stimulation, we are not sure that vasospasm accounts for the endolymphatic hydrops that occurs in Ménierè's disease.

As with tinnitus, stellate ganglion blocks have been tried in an attempt to relieve the symptoms of Ménierè's disease. Where the ganglion blocks have produced some measure of relief, removal of the sympathetic chain in the cervical region has been completed. Garnett Passe was a very enthusiastic advocate of this form of treatment and in his hands there seems to have been a reasonable measure of success. Generally speaking, the success has been very limited. Once again the best indication for this form of treatment is the bilateral case of Ménierè's disease.

Rosen claims good results in Ménierè's disease from section of the chorda tympani in the middle ear cavity, but again the operation has not met with much success in other hands.

There are two operations employed for the relief of Ménierè's disease that are very successful indeed and each has its specific indications. I refer to the labyrinthectomy, as described and practised by Cawthorne, and vestibular nerve section.

Vestibular nerve section is the operation of choice in cases of endolymphatic hydrops in which the vertigo is the predominant symptom. If there is very little loss of hearing and no distortion of sound (a situation not a characteristic feature of Ménierè's disease), the operation is performed on the affected side. The procedure is associated with certain technical difficulties and it is sometimes difficult to separate the cochlear from the vestibular fibres of the eighth nerve so that there is the danger of damaging the hearing. Furthermore, deterioration of hearing is liable to continue in much the same way as it would have, had the recurrent vertiginous attacks continued.

If the hearing loss on the affected side is of marked degree and associated with troublesome distortion of sound due to recruitment (as is usually the case with Ménierè's disease), the operation of choice is destruction of the labyrinth. This is performed by opening up the mastoid cavity, exposing the lateral semicircular canal and extracting the membranous labyrinth. This procedure destroys the remaining hearing in the affected ear but this, as a matter of fact, is usually an advantage in the case that is properly selected, since the hearing in the unaffected ear appears to improve by comparison. I have not yet seen a failure to relieve the vertiginous attacks with this operation and it is not associated with any postoperative complications.

SEROUS LABYRINTHITIS

By serous labyrinthitis is meant a condition in which there appears to be a chronic irritative state affecting one labyrinth. This is usually associated with chronic mastoiditis, although there is no true bacterial infection of the labyrinth.

The condition occasionally follows mastoidectomy of long standing and, when this occurs, may completely incapacitate the sufferer. The hearing is badly affected and, indeed, the patient may have no hearing at all in that ear.

Dramatic relief from the vertigo very frequently follows labyrinthectomy and there is a case on record where a patient was back to normal activity 6 weeks after labyrinthectomy, whereas she had been unable to move out of her bed for a period of several years before.

FACIAL NERVE PALSY

Many practitioners are as yet insufficiently aware of the possibilities of assisting restoration of the function of the paralysed facial

nerve by surgical means. Yet here we have a surgical procedure that is not destructive and one in which, at worst, we can produce no improvement in the condition of the patient, while at best we can restore function to a nerve that gives rise to severe and obvious deformity and disability.

If there is a traumatic or erosive lesion of the facial nerve, there is no doubt that the lesion should be exposed and a repair effected. The repair may simply be possible by means of a neurolysis if the nerve be caught up in contracting scar tissue in the soft tissues around its exit from the stylo-mastoid foramen.

If, on the other hand, the nerve has been damaged within the bony facial nerve canal, it may be exposed and the traumatizing lesion removed. The common lesions are fractures of the base of the skull and surgical trauma during operations on the mastoid. Sometimes a cholesteatoma is found to have eroded the facial nerve. If there is no breach of continuity of the nerve, decompression is all that is necessary after removal of the traumatizing bone or cholesteatoma. However, if there should be a breach in its continuity, it may be necessary to re-course the nerve so that the cut ends can be brought together; or it may be necessary to insert a nerve graft between the 2 cut ends of the nerve.

Gowers once said that the larger proportion of cases of Bell's palsy recovered spontaneously and it was just this fact that accounted for tragedy in those cases which did not recover.

If the lesion is situated at the level of the geniculate ganglion or more centrally, the chances of obtaining any improvement of function after decompression of the nerve are small. The site of the lesion can be judged by testing for lachrymation and comparing the lachrymation on the affected side with that on the unaffected side.

If the lesion is in the horizontal or the vertical part of the facial nerve (and this is the most usual situation) one may justifiably consider exploration of the nerve in its Fallopian canal, if there should be no return of function after some time.

Some workers consider that a period of paralysis of 6 weeks without return of function is sufficiently long to justify exploration; and there are others who consider that a period of at least 12 weeks should be allowed to elapse before one can be reasonably confident that no spontaneous recovery will occur.

However long this arbitrary limit is to be, there will be cases in which spontaneous recovery occurs and there have been examples of spontaneous recovery beginning when there had been no sign of recovery for as long as a year after the onset.

If it were possible to assess the degree and nature of the damage to the facial nerve, we should have a better chance of deciding on the ultimate prognosis as regards recovery of the nerve after decompression. The standard method of assessing the condition of the nerve by muscle response to faradic and galvanic stimulation is unsatisfactory and may be misleading. Electromyography has been used with some success, but this is by no means infallible and is only satisfactorily carried out in a unit devoted to research in nerve lesions.

FACIAL TIC

By facial tic is implied the painless tic that results from a degeneration of the facial nerve either centrally or peripherally. The cause of the condition is often obscure, but it sometimes follows Bell's palsy and geniculate herpes. It must be distinguished from the habit tics, and there is usually some degree of paresis of the muscles supplied by the affected nerve.

When first seen, the patient has usually suffered from this distressing condition for many years and is very often extremely self-conscious.

Cawthorne suggested and practised exposure of the facial nerve in these cases and traumatization of the nerve by compression. This leaves the patient with a varying degree of facial paralysis, which starts to recover a few days after the operation and soon returns to a normal working state without the tic. There is a tendency, unfortunately, for a proportion of cases to recur, but the procedure may be repeated and will often result in relief of the tic after the second operation.

Recently the facial nerve has actually been severed in an attempt to relieve the condition and the results are similar to the results after traumatization.

To realize the profound psychological effect of a facial tic, one has only to see the patient after operation and, with one side of his face paralysed, proclaim his heart-felt gratitude to the surgeon who produced the paralysis. Fortunately, of course, he can be assured of return of function of his facial muscles, and this no doubt plays some part in the unconcern for his facial immobility.

CONCLUSION

A brief outline has been given of the surgical possibilities of relieving symptoms due to

diseases of the nervous system within the temporal bone.

Most of these procedures are still in the experimental phase and as such might be unacceptable to the scientist. However, until such time as our knowledge of the physiology of the labyrinth and of the facial nerve has advanced beyond the stage of speculation, we should not deprive patients of the benefits of this type of surgery simply because we have labelled it empirical.

Only by availing ourselves of the opportunity to observe the facial nerve and the labyrinth under living, pathological conditions, can we hope to advance our knowledge on the subject.

If we are to succeed ultimately in effecting cures of the diseases enumerated in this survey, we must have 'the mind to perceive, the will to attempt and the tenacity to persist'.

OPSOMMING

'n Kort beskrywing word verstrek van die chirurgiese moontlikhede wat betref die verligting van simptome voortspruitende uit siektes van die senuweegestel binne die slaapbeen.

Die meeste van hierdie prosedures verkeer nog in die proefondervindelike stadium, en gevolglik is hulle miskien onaanneemlik vir die wetenskaplike. Hoe dit ook al sy, tot tyd en wyl ons kennis van die fisiologie van die doolhof en van die gesigsenuwee die grense van bespiegeling oorskry het, behoort ons 'n pasiënt nie te beroof van die voordele van hierdie soort chirurgie bloot omdat ons dit as empiries bestempel het nie.

Slegs deur gebruik te maak van die geleentheid om die gesigsenuwee en die doolhof onder lewende patologiese toestande te betrag, kans ons hoop om ons kennis van hierdie onderwerp uit te brei.

As ons uiteindelik daarin wil slaag om genesing van die siektes wat in hierdie oorsig uiteengesit word, te bewerkstellig, moet ons sorg dat ons ‚die verstand het om waar te neem, die wil om 'n poging aan te wend, en die volharding om vol te hou'.

PHYSICAL MEDICINE IN PSYCHIATRY

RONALD ROBINS-BROWNE, M.D., D.Phys.Med., L.M., M.R.C.S.*

Johannesburg

In physical disorders both diagnosis and treatment are usually carried out by the doctor alone along conventional lines. Psychological problems, however, require a less stereotyped approach.

The psychiatric patient's symptoms are either the direct or indirect result of mental trauma which may have occurred at any time during his life, and are of such a diversified nature that the routines and formulae which we associate with physical disease cannot be applied. A true psychiatric assessment is difficult, for it depends on a number of obscure factors. The doctor has to rely upon the evidence of a patient who is unreliable and on the defensive, and of relatives who are incapable of impartial testimony. Moreover, he sees the patient during consultations for only about 4 hours a week. What happens to the patient during the remaining 164 hours of the week is of utmost importance, for a patient's history and family history are not enough to determine his condition. His everyday actions and reactions must be known if the cause is to be treated. The removal of the cause is the essence of all treatment.

The patient should, therefore, be under observation for 24 hours a day. This requires a team of workers and the team grows as our knowledge increases.

Diagnostic and Therapeutic Team. The personnel of the team should comprise:

(*a*) *Medical*: Psychiatrist, neurologist, physician, neuro-surgeon, paediatrician, clinical encephalographer, ophthalmologist, ENT specialist, radiologist, physical medicine specialist, etc.
(*b*) *Psycho-Social*: Clinical psychologist; social worker.
(*c*) *Nursing Staff.*
(*d*) *Auxiliaries*: Occupational therapist, craft instructor, physical educationalist, sports instructor, physiotherapist and dietician.

Close co-operation between the various departments is ensured by:

(*a*) Weekly staff conferences.
(*b*) Administration meetings (Fig. 1).
(*c*) Reports from nursing staff; occupational therapy, physical education and physiotherapy departments; and from the social workers.
(*d*) Immediate reports to the doctors on any unusual feature.

* Specialist in Physical Medicine, Tara Hospital, Johannesburg, and Germiston Hospital. A paper presented at the South African Medical Congress, Pretoria, 1955.

The administration of Tara is to be congratulated on the efficiency and adaptability of this system of co-operation and co-ordination.

Patients. Alcoholics, certifiable cases, the conspicuous and the unassimilable, and infants are excluded from Tara; but otherwise the patients form a cross-section of the European population and have the advantage of mixing with people of all types and from all walks of life; 835 in-patients were admitted during the past year. They live at the hospital but are allowed 48 hours' leave at the discretion of the doctor. The attendances of day-patients during the year were 2,457; these stayed from 10 a.m. to 3 p.m. Their number is increasing because certain patients do better in their home environment, while incidental advantages result from the larger turnover of patients and the relief afforded the short-handed nursing staff. In addition there were 1,464 attendances of out-patients, who came for special treatment only.

As soon as a patient enters Tara (Fig. 2) he is under observation. He becomes an individual nucleus in the group structure of Tara's microcosm. A specially qualified clerk is responsible for reception as tact and careful questioning are essential to make the patient feel at ease. The registrar on duty is informed of the patient's arrival and the first interview is with the patient himself and those who accompany him. The doctor takes a full history, carries out a complete physical examination and makes a psychiatric assessment. He prescribes occupational and recreational therapy on a special card drawn up 5 years ago.

Occupational therapy is started within 48 hours. This is chosen by the occupational therapist in charge after an interview with the patient. Meanwhile the patient is shown the ropes (Fig. 3) by selected fellow patients and is given a week in which to settle down to the hospital routine.

Time-Table. The average stay of the psychiatric patient at Tara is 8 weeks; the week (168 hours) is divided up more or less according to the following programme:

1. Seventy hours are spent in the wards by 70% of the psychiatric patients.
2. At occupational therapy 25 hours are taken up by 98%.
3. Ninety-five per cent. participate in sports (Fig. 4), consuming 15 hours.
4. Physical training involves 60% of the cases, using 4 hours.
5. Six hours are spent on physiotherapy by 10%.
6. Twelve hours are passed at evening recreation and entertainment such as cinema, social club, ward entertainments, concerts, plays (Fig. 5), dances and indoor games, at which 98% attend.
7. Relaxation (either group, private or inaction) involves 65% of the patients for 1 hour.
8. All have consultations with specialists for half an hour.
9. Twenty per cent. require special investigations, e.g. electroencephalography, air encephalography, arteriography, etc. which take half an hour.
10. All have special treatments (including psychotherapy, E.C.T., insulin) which occupy a further 2 hours.
11. Ninety-eight per cent. of psychiatric patients attend the following meetings, which allow for 3 hours: (*a*) With medical superintendent (Fig. 6); (*b*) Recreation committee; (*c*) Sports committee; (*d*) Library committee; (*e*) Ward representatives (Fig. 7).

Physiotherapy. This is applied as though the symptoms resulted from physical disease. Thus for pain, diathermy is usually applied and for impaired muscle power, faradic stimulation. The *tense* patient is given heat, sedative massage and hydrotherapy, and is taught to relax. The *lethargic* patient has contrast baths, electrical stimulation, high frequency, stimulative massage and tonic ultra-violet light therapy.

Above all, however, the physiotherapist must radiate reassurance.

Occupational and Recreational Therapy. Occupational and recreational therapy is an integral part of the field covered by physical medicine and rehabilitation. I should define occupational therapy as 'any activity, mental or physical, prescribed by a physician for its remedial, diagnostic, or prognostic value.' It seeks to arouse interest, courage and confidence, all of which are necessary for overcoming disability and for the patient's return as a normal member of society.

Its history dates back to the early Egyptians. It has at various times been called diversional, moral, cure or work therapy. Its application depends, not on a prior classification of patients, but on the results it achieves with each individual patient. Until recently occupational therapy was controlled mainly by lay personnel as arts and crafts teachers; however, it is gradually falling under medical guidance. Its aims and *modus operandi* can be summed up as follows:

Objects and Operation: (1) *Observing Behaviour.* This is fundamental to treatment, for in the atmosphere of the consulting room it is not possible to envisage the patient in social situations. The set-up at Tara makes observation of spontaneous behaviour possible, thus providing a background for a living diagnosis and prognosis. The patient is constantly watched at work and play. He cannot keep up a pretence all the time and data can be

obtained on, e.g. inter-personal relationship, work tolerance, teaching tolerance, application, memory, judgment, aptitudes, personal habits, reliability and endurance. At weekly staff meetings (Fig. 8) these findings are discussed with the doctor who interprets them and directs further treatment and observation.

2. *Assessing Ability.* The way a patient tackles a task, the methods used, his power of co-operation and his ability to mix with his fellows are carefully noted, special regard being paid to his concentration, natural dexterity, endurance and intelligence.

3. *Providing Creative Outlets.* Man's inherent desire to create is often blunted by mental, monetary and social setbacks or by unresolved emotional difficulties. It can, however, be restored by careful selection of interesting occupations, the use of colours and designs (Fig. 9) and by encouragement with timely advice and help. Samples of the work turned out by patients are on exhibition for all to see.

4. *Providing Opportunities for Emotional Expression.* Generally speaking, people are unable to express emotions with the same intensity as they are felt. Socially unacceptable and, therefore, usually unexpended energy is directed into constructive channels. The patient is thus relieved of his often unconscious burden. Those with frustrated aggressions hammer away at metalwork (Fig. 10), saw away at carpentry (Fig. 11) and pummel the clay at pottery (Fig. 12). Repetitive mechanical work (e.g. rug making, sewing, weaving (Fig. 13) and basketry (Fig. 14) is found useful in the treatment of anxious and agitated patients. During and after sessions of relaxation (Fig. 15 there are often bursts of tears and much talking, after which the patient feels better.

Art therapy (Fig. 16) and music therapy are other forms of emotional expression with which we are experimenting. A music room (Fig. 17) with a piano, radiogram and record library is available for the patient.

5. *Physical Reconditioning.* Mental illness usually comes on gradually after long periods of suffering. The patient neglects himself, loses interest, eats badly, smokes heavily and drinks excessively. He becomes unfit, losing weight and suffering from hypovitaminosis. The dietician has to make the food tempting and appetising and this is served in a pleasant environment (Fig. 18). By careful selection of occupation with possible adaptations and adjustments, as well as by graduated physical training (Fig. 19) and sport, the patient is put on the road towards a more active and normal life.

6. *Improving Concentration.* The power of concentration is usually impaired by illness and is gradually restored by providing interesting and varied occupations, by constant encouragement and by insisting on the highest standard of work of which the patient is capable. Metal work, leather work (Fig. 14) and carpentry are particularly useful in promoting the power of concentration.

7. *Developing Confidence.* When new patients are shown samples of work that others have done, they usually say that they are unable to do such work. But when, under guidance they, too, turn out a good article, their confidence, usually impaired through illness, is re-established.

8. *Restoring Independence.* Patients lack initiative and require support and encouragement. It is the aim of the therapeutic team to make them aware of their capabilities and limitations and to make them less dependent on others. To this end the patients are allowed to elect their own committees.

9. *Developing a Sense of Responsibility.* Through the microcosm of the staff-patient community the patient is made aware that everybody plays a part in society. The patients have their own recreation committee, its chairman, secretary and the dining-room representative being recommended by the doctor. The patients also elect their own ward representatives. Some take on library (Fig. 20), snooker (Fig. 21), wheelchair, telephone (Fig. 22) and sports equipment (Fig. 23) duties; others take on sport field duties, e.g. cricket (Fig. 24), hockey (Fig. 25), soccer, soft ball (Fig. 26), basket ball, archery (Fig. 27), croquet (Fig. 28), tennis (Fig. 29), tenniquoits (Fig. 30), golf, bowls (Fig. 31) and swimming (Fig. 32). Other responsibilities include arranging or evening entertainments and week-end recreations.

10. *Restoring Selft-Esteem.* The unremitting efforts of the therapeutic team in a controlled environment restore the patient's confidence and self-esteem. In this respect the status enjoyed by members of the recreation committee (Fig. 33), particularly by the chairman, the secretary and the dining-room representative (Fig. 34), has had a most valuable effect.

11. *Recognition of the Patient as an Individual.* By treating the patient as an individual who happens to be ill, instead of as a mere vehicle for an illness, the therapeutic team does much to inculcate self-respect.

The generous support of the following sponsors made possible the reproduction of the colour plate opposite:

Abbott Laboratories S.A. (Pty.) Ltd.

Norman Anstey Limited, Johannesburg.

The British General Electric Co. (Pty.) Ltd. representing Watson & Sons (Electro-Medical) Ltd., largest British manufacturers of X-ray apparatus, and Hanovia, Slough, manufacturers of actino-therapy and ultra-violet bactericidal equipment.

Greatermans Wholesale Ltd., Johannesburg.

Kodak (South Africa) (Proprietary) Limited.

Lennon Limited, Manufacturing and Wholesale Chemists and Druggists.

John Orr & Co. (Transvaal) Ltd., Johannesburg.

Patons & Baldwins Limited, manufacturers of P & B Beehive Knitting Wools.

Merck-Sharp & Dohme, P.O. Box 5933, Johannesburg.

Moss Smollan & Sons (Pty.) Ltd., Maritime House, Loveday Street, Johannesburg, representing the Yorkshire Insurance Co., Ltd. (All classes of insurance effected).

Fig. 1. Administration confers with representatives of the therapeutic team.

Fig. 2. Tara Hospital is in Hurlingham, a quiet, select northern suburb on the outskirts of Johannesburg. It covers an area of 61 acres, 34 of which have been developed.

Fig. 3. A patient guide shows a new patient the mobile post office.

Fig. 4. Scene on 9-hole golf course.

Fig. 5. Patients watch a play produced and acted by fellow patients.

Fig. 6. The Medical Superintendent and certain members of the team listen to propositions from patients to improve their welfare at Tara.

Fig. 7. The ward representatives meeting, a doctor and nursing staff being present.

Fig. 8. The doctor meets all members of the team.

Fig. 9. Soft crafts showing felt work and embroidery. Females fill this section, which is most socializing. Note the finished articles.

Fig. 10. Hammering away aggressions at metal work promotes concentration. A number of females has worked here. Note the specimens.

Fig. 11. Sawing at carpentry requires concentration. Exhibits are shown.

Fig. 12. Pummelling clay, one of the best outlets for suppressed emotions.

Fig. 13. Weaving, usually sedative. The colours and patterns stimulate interest. Mixed groups. Products are shown.

Fig. 14. Basketry, mainly used for relaxation, is very sociable. Leather work aids concentration. Embossing and painting induce interest. Mixed groups. Note the samples.

Fig. 15. A female class at relaxation.

Fig. 16. Art therapy must be done in a quiet atmosphere. The doctor listens to patients' interpretations of drawings, which assist in diagnosis.

Fig. 17. Music room. A patient plays the piano.

Fig. 18. Part of dining room. Note the light, clean conditions. Waiters are correctly attired.


19


20


21


22


23


24


25


26


27


28


29


30


31


32


33


34


35


36

The generous support of the following sponsors made possible the reproduction of the colour plate opposite:

Allen & Hanburys (Africa) Limited.

Dunlop South Africa Limited, manufacturers of Sports Goods and Dunlopillo.

Harley Sports (Pty.) Ltd. (Tom Kukuljevic). Stockists of all Sports Goods and Specialists in Racket Restringing and Repair.

Alex. Lipworth Ltd., Johannesburg.

Medical Distributors. Johannesburg.

Protea Holdings Limited, P.O. Box 7793, Johannesburg, and throughout Southern Africa. Specialists in Equipment for Rehabilitation and Physical Medicine.

Reckitt & Colman (Africa) Ltd.

Schlesinger Organisation.

Union Medical Supplies Ltd., Cape Town.

Fig. 19. A female group square dancing while a part-time pianist plays.

Fig. 20. A portion of the library. Patients' duties are to assist the librarian.

Fig. 21. The snooker room is very socializing. Mainly males. Concentration is essential.

Fig. 22. Telephone duties are taken on by females. Messages are written on the board. This restores confidence.

Fig. 23. Part of equipment room. Note the completeness; also the cups and trophies.

Fig. 24. Cricket (for the younger males) assists concentration.

Fig. 25. Hockey. Our patients are divided into 2 main sides—yellow (*The Tigers*) and red (*The Lions*)—to stimulate the competitive spirit. Note the mixed group.

Fig. 26. Softball is a good outlet for suppressions, socializing for team and spectators. Mixed group, with a wide range of ages.

Fig. 27. Concentration is essential in archery. Mixed group. Less active, e.g. wheel-chair patients.

Fig. 28. Croquet is socializing for the less active (mainly females).

Fig. 29. Tennis on one of the 4 courts for a physically fit mixed group.

Fig. 30. Tenniquoits (mixed group) maintains concentration.

Fig. 31. Bowls. This shows one of our two regulation size greens. It is most socializing and relaxing. Mixed groups.

Fig. 32. Swimming bath (17 ft. x 37 ft.), mixed groups. Socializing and stimulative.

Fig. 33. A recreation committee meeting. All the representatives of the patient community are present with members of team.

Fig. 34. The dining room representative hands serviettes to new patients, conducts them to their tables and introduces them.

Fig. 35. The Y.M.C.A. canteen where patients entertain visitors.

Fig. 36. A rehabilitated patient escorts a new patient to town and is responsible for him until he returns.

12. *Integration into Society.* This can be achieved by encouraging the patient to find his place in the patient community through group activities, of which most important are sport and recreation. Group therapy for patients with similar problems also helps to strengthen fellow-feeling.

Moreover, Tara has its social club, which is open to all ex-Tara patients and there are regular evening meetings in town to which selected patients from Tara are taken to mingle with the members. Membership of this club entitles one to use the amenities of Tara during week-ends and holidays.

At our Y.M.C.A. canteen (Fig. 35) the patients may purchase requisites at approximately cost and can entertain their visitors.

To further the work of social integration the social worker keeps the doctor informed about the patient's work and his domestic and social life.

13. *Rehabilitation.* I define this as 'the optimum restoration to the patient's normal physical, mental, social and economic standards'. This is the ultimate goal (Fig. 36) of all our work. The psychologist and the social worker with the help of the Department of Labour can, if necessary, find suitable employment.

In recent times sex determination has become an important factor in the process of rehabilitation. It has received much publicity in the press and it is no longer enough to decide whether one is man or mouse. Tara seems to be the ideal place for the treatment of problems arising from sex diversities.

The Occupational Therapist. The occupational therapist is a properly trained and fully qualified person. It is by no means essential for her to be an expert on crafts. It is far more important that she has an awareness of people, knows how to handle them and how to foster good inter-personal relationships. She should be a good teacher and observer, able to adapt the selected craft to the patient's requirements and be ready and able to draw up adequate reports.

The patient is persuaded and not coerced into taking part in some activity at Tara. Thus the greater the scope the easier it is to cope; and amongst the amenities Tara has to offer, some activity that appeals to the patient can always be found. We do not want to know what occupational therapy the patient is doing, but what occupational therapy is doing for the patient. (The Society representing the occupational therapist is a new body which is growing rapidly and will no doubt play a great part in the future.)

The much proclaimed benefits of modern civilization are to a considerable extent offset by a more intensified competitive spirit and by the increased strain of everyday life. The rise in the cost of living, war, the threat of war and its aftermath, the insecurity often attendant on longevity and the entrance of women into nearly all walks of life are some of the factors which help to fill the wards of such institutions as Tara.

It was Galen who said: 'Occupation is Nature's best physician.' A modern sequel of this dictum could well read: 'Occupational therapy is Nature's best medicine.'

SUMMARY

1. The psychiatric patient requires 24 hours' daily observation for diagnosis and therapy.

2. The doctor's time is limited and he therefore requires assistance from the diagnostic and therapeutic team.

3. The type of patient admitted to Tara and his introduction to the hospital routine is outlined.

4. The physiotherapeutic angle is described.

5. Occupational therapy is defined, as is our concept that it consists not merely of crafts but the wider field embracing group activity and group participation of all kinds necessary to resocialize the patient to face his daily problems in the outside world.

6. The role of the occupational therapist is indicated.

OPSOMMING

1. Vir diagnose en terapie is dit noodsaaklik om die psigiatriese pasiënt 24 uur per dag waar te neem.

2. Die geneesheer se tyd is beperk, en hy het derhalwe die hulp van die diagnostiese en terapeutiese span nodig.

3. 'n Beskrywing word verstrek van die tipe pasiënt wat tot Tara toegelaat word, en sy voorstelling aan die hospitaalroetine word kortliks beskryf.

4. Die fisioterapeutiese sy van die saak word bespreek.

5. Arbeidsterapie word omskryf. So ook ons opvatting dat dit nie bloot uit hulpkunste bestaan nie, maar ook uit die breër aspekte, insluitende groepbedrywigheid en al die verskillende soorte groepdeelneming wat nodig is om die pasiënt opnuut te sosialiseer sodat hy sy daaglikse probleme in die buitewêreld weereens die hoof kan bied.

6. Die rol van die arbeidsterapeut word aangedui.

The colour photographs (Figs. 1—36) were taken by the author and they show the various activities of the Physical Medicine Department.

I wish to thank Dr. H. Moross, Medical Superintendent of Tara, for his very kind advice and co-operation in making this presentation possible.

GROUP PSYCHOTHERAPY

AN OUTLINE OF SOME MODERN PROCEDURES

L. S. GILLIS, M.D., D.P.M.*
Tara Hospital, Johannesburg

In all societies the gregarious nature of Man leads him to form associations in groups. So strong is this need that some have elevated it to the status of an inborn instinct;[1] others again, while denying its inherence in human nature, still accord it great importance as one of the most deeply entrenched of human needs.[2] Be this as it may, it remains inescapable that societies form groups all the time for a multitude of reasons—to protect the individual and his kind, to accomplish set purposes of mutual benefit, to diminish the sense of isolation and aloneness experienced by those deprived of the companionship of their fellows, and for many other needs. Whatever the genesis, Man has a propensity for, and also a long history of, experience and successful participation in groups which stretches back through the ages.

The ease and facility with which people accommodate themselves to joint endeavour in the familiar setting of a group provides much of the impetus for group psychotherapy as a method of treatment for the mentally ill. The group acts as a vehicle in which problems of individual adjustment and interpersonal relationships can be observed and dealt with by the combined resources of the patient, the therapist and Society as represented by the other members of the group. Treatment takes place, as it were, within the context of the society whose demands the patient has been unable to accede to or accept, and where he first demonstrated his unadjustive neurotic or psychotic behaviour. He is face to face with the situation which first occasioned his illness, and he can now be given the opportunity to deal with it in a more effective manner—but this time in an understanding atmosphere and in controlled circumstances. Treatment thus takes place in a setting that has real social meaning.

Although teaching in groups and the learning that results from joint experience is age-old, group psychotherapy in its present developed form is a definitely modern procedure. The earliest formal group therapy was probably conducted in Paris by Mesmer (whose use of hypnotism created a stir before the turn of the present century). Camus and Paquiez,[3] pupils of Dejerine, wrote on their particular method in 1904. Pratt[4] was the first to describe its use in America in 1906, but employed group methods primarily amongst tuberculous patients in a sanitarium. This early work was in general isolated and desultory, and it is only in the last 20 years that group psychotherapy has come into general use and been developed as an effective therapeutic tool. World War II saw a surge of group activities, and since then its potentialities have been further explored and at least some of them realized.

In its original development the group method was used primarily as a substitute for individual psychotherapy, which is enormously time-consuming. Psychiatrists working in mental hospitals and burdened by large case loads found the private treatment of the individual a practical impossibility and turned to group treatments as a measure of economy. Thus it is that in the early reports on the subject an apologetic note on the grounds of expediency is evident. This attitude has changed to one of confidence for the new methods as they proved to be effective in themselves, and recent reports indicate that results of treatment are, in certain cases, at least, as good as those obtained with individual psychotherapy.[5-7]

Group psychotherapy has been used in many different venues and contexts—in psychiatric and mental hospitals, in penal institutions, out-patient departments of general hospitals, child guidance clinics, private practice, etc. Recently the tendency has been for it to move from the more strictly defined therapeutic areas such as hospitals into the community, i.e. in the training of personnel working in the psychiatric field, e.g. psychiatric social workers, nurses and occupational therapists, and also in the field of general education. Several different techniques have been

* Psychiatrist and Neurologist, Tara Hospital, Johannesburg.

developed to meet the needs of special groups of patients. Normally communication within the group takes place verbally through discussion, but for patients where this is not possible, such as young children and retarded psychotics, communication through the media of drawings, puppetry, drama, play techniques, hypnotherapy, activity groups, etc. may be used. The therapeutic groups utilizing these techniques work on common basic principles but require, in addition, a special knowledge of their specific techniques.

There is also a variation in what may be called the spirit of the approach used in different therapeutic groups. At the one extreme are those techniques which concentrate upon repressive and inspirational processes. These embrace groups such as those conducted by Alcoholics Anonymous, groups with clearly stated religious or spiritual emphasis, some didactic groups, etc. Here the leader tends to take a dominant role giving reassurance, support and hope, and only minimally attempting to deal with basic underlying psychological problems. At the other extreme are those group therapies where there is a greater interaction of the group members and where the therapist takes a more passive or permissive role. These groups deal more intensively with underlying psychopathology and embrace such approaches as group analytic psychotherapy, group psycho-analysis, etc. Freudian theory often figures largely, but many groups exist which utilize Jungian psychology, Lewin's field theory, gestalt theory and other current psychologies. In this review, the latter category of group psychotherapies, i.e. those attempting a more intensive and profound re-orientation of psychological problems, will be dealt with at greater length.

PROCESSES OCCURRING IN THERAPEUTIC GROUPS

A group is often a very representative section of society. It may comprise persons from all walks of life and from many backgrounds, and therefore it comes to constitute a powerful influencing and pressure system for the individual contained in it. This influence varies in kind and degree—in certain circumstances it may build up to become a force of major proportions, which can be put to good use in psychotherapeutic sessions; in other situations its influence may, of course, be minimal. There exists, however, a point where the results of the interchange that occurs between the members of any group passes from a more casual effect on behaviour and attitudes to a therapeutic one upon one or more of the constituent members. This is the aim of group therapy. Amongst the more casual effects are a general increase in information and a sharing of experience. These are not insignificant in themselves, but modern group therapy does not rely for its results upon them as more primarily upon the interaction of its members. Dreikurs and Orsini[6] have put the case clearly:

> 'All human values are of social nature; all social participation affects our value system positively or adversely, reinforcing certain convictions and diminishing others. The normal group experience of an adult is generally limited in power to penetrate his already well established and rigidly maintained value systems. In contrast, the impact of strong emotional social experiences as found in group psychotherapy is bound to have its effects on the value systems of each participant.'

From this emerges the fact that the group has a more potent energy than any of the individuals comprising it. It has a force that will not tolerate indifference manifested towards it, and positive and negative reactions both arise in plenty in the individuals forming it. These will indicate, in miniature, the problems that any particular member of the group has in coping with the Society of which he forms a part; they will come under his and the group's scrutiny in the circumscribed surrounds of the therapeutic group where they can be assessed and dealt with.

An important fact is relevant here. It might be assumed that since the individuals making up a therapeutic group are ill in some way, the group itself would be an unhealthy one and because of this not representative of a normal society. In practice, however, it is found that this is not so and, as remarked by Foulkes,[8] the group is largely independent of the individual infirmities of its members. As a whole it is found to subscribe to and enforce the ordinary mores and accepted norms of the larger society it is derived from, as well as to obey universal laws of group interaction and dynamics. The vagaries and deviations of the individuals in it seem, to a large extent, to cancel themselves out so that the whole comes to act substantially in the same manner as would a group consisting of mentally healthy persons. From this it follows that there is, in the therapeutic group, the constant availability of a healthy frame of reference for the individual to measure himself against. It provides a reality close at hand so that whatever the sick phantasies of the patient, the group always has healthy attitudes to put by their side. Often the patient cannot but acknowledge how far

from reality he has moved, and this is a correctional experience of a high order.

As has been indicated, in the small world of the group the attitudes and mores of the larger world are equally operative. Dishonesty, either intentional or unintentional, is not tolerated by the group, reasonable justice prevails, personal gain to the detriment of others is not countenanced, and cruelty or victimization is dealt with. These are given only as examples. There are many other functions which a civilized society exercises, and many prohibitions that it exerts, in its own interests. These constitute a definite reality for its members, and in the therapeutic group their transgression arouses strong feelings in the others sitting round. These feelings are then expressed in various ways. Take, for example, the rejecting attitude of an older patient who has become a surrogate father for a young woman in a therapeutic group that is at present being conducted at Tara Hospital. The rest of the group perceived an injustice here, and being also affected by the rejection, demonstrated against it. Some condemned the older man outright, others advised a different attitude on his part or, alternatively, by their own example, acted towards the young woman as they felt the older man should have done. In this way an ideal of how the older man should have acted was formed by the group. The young woman was capable of assimilating this, albeit unconsciously, and came to attribute this beneficient behaviour of the group as coming to her from the father she would have wished to have had. In reality, however, he had acted very differently in her childhood, but in some way she learnt in the group that not all fathers behave as hers did, and that it is possible to have a different relationship to him and to older men in general from the one she had had. As far as the older man is concerned, he had to endure the condemnation, spoken and unspoken, of the group. This gave rise to anxiety and tension and since this was not allowed to be uselessly dissipated by his leaving the group or having an individual interview at another time, he brought these feelings out in the group situation. More manifestations and revelations of his underlying problems emerged and these were then dealt with in a helpful and uncritical fashion.

It is not the function of this type of group primarily to reassure and to comfort, and anything which tends to act as a repressive force in the group is minimized, e.g. patients are encouraged in all ways to express what they really feel and not to withhold material that they may fear. In this way much personal responsibility for participating in the treatment of their own illnesses is vested in them. Indeed, if the patient does not wish to take this responsibility, it soon emerges in the group and commonly he will leave it of his own accord as he does not find a support or reinforcement there for his neurotic needs. There is, of course, much support and reassurance to be drawn from group membership notwithstanding this and in spite of the anxiety that arises in patients at different times, and it is frequently found that when the time comes for the patient to leave the group he experiences great difficulty in severing himself from this haven of security and understanding.

Anxiety is therefore one of the tools that the group works with in that only those who have become sufficiently disturbed by it are motivated to do something about their problems in order to bring about a decrease of their tension. It is the function of the group to deal with this 'something' in a therapeutically fruitful way, and to discourage previous neurotic outlets used for the relief of tension. The patient's mode of dealing with his anxiety becomes manifest to the group and to himself, and the meaning of his symptoms becomes clear. For example, an individual suffering from an obsessional state may be seen to have symptoms in order to cover great anxiety related to underlying homosexual strivings, and so on. Anxiety is allowed to generate in the group as it will. For this reason, silences or lapses in the discussion are allowed to continue—these are great producers of anxiety because it is during these periods that patients are assailed by their own inner fears and wishes. Great tension may arise which is followed by marked reactions in the patients —they may burst into tears or rush from the room and perhaps create a disturbance in the ward later. These reactions, which represent spontaneous manifestations of the patient's underlying psychological state, the silence and the reason for the silence, are all important material to be considered and understood by the group.

It goes without saying that free expression of thoughts and emotions is a prime requisite. This may be difficult to obtain at first as people tend to be guarded in a new situation. They are also naturally diffident about discussing intimate details of their personal lives in front of others. With proper conduction, however, the patients become assured that no malicious or hurtful criticism will come of

what they say, and it is really surprising to see how freely patients do express themselves in time. In my experience I have found no greater amount of holding back of intimate or guilt-laden matters (whether sexual, aggressive or against the conventions of society) than occurs in individual psychotherapy. Only those matters that patients themselves bring up are considered worthy of discussion. This material may be purely verbal—what they relate about themselves, the discussion that ensues, anecdotes, questions to the therapist (the latter are generally discouraged) or it may consist of their observed behaviour in the group. For example, one member consistently said nothing over many hours, but was observed to be always knitting with ferocity. It seemed that she was getting her feelings out in wool rather than in words and an observation was made to the group to this effect. They then took this matter up and after discussion it emerged that the patient harboured hostile feelings towards another member of the group which she sublimated in this way. The whole situation was found to be a rivalry one with the knitter feeling towards the other patient as she felt towards an envied and hated older sister. This was discussed and dealt with by the entire group, and the situation ultimately resolved. Very little selection of topics for discussion is done by the conductor, and he generally chooses no specific subject to talk on. He limits himself to interpretations of aspects of the general group discussion, and spends the majority of his time listening and trying to understand the feelings and meanings of his patients.

Group psychotherapy thus implies the treatment of the individual in a multibody society. In contrast to this, individual psychotherapy operates through a one-to-one relationship, i.e. solely between therapist and patient. In spite of the apparent difference there is fundamental agreement between the two types of psychotherapy on many aspects of psychodynamics. Each, however, has particular advantages in its own sphere, and they may on occasions be used in a complementary fashion. Multibody therapy, e.g. is especially valuable (according to Rickman[9]) as it deals with derivatives of the Oedipus complex and psychological forces operating when several or more individuals come together. It therefore has great application where neurotic difficulties result in poor socialization.

There exists, for those therapists experienced in individual treatments, and who bring over this experience (much of which is equally relevant) to group therapy, a frequent stumbling block. They tend to think of the therapeutic group as a collection of individuals treated in a group because of greater convenience and economy of effort and time, with themselves as its focal point. This may be diagrammatically represented as in Fig. 1.

Fig. 1.

In actual fact, as has been pointed out above, the group becomes an organism with its own life and laws and energies. The leader becomes engulfed in a meshwork of complicated relationships which may be represented as in Fig. 2.

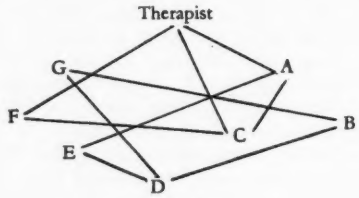


Fig. 2.

His role is, in fact, a variable one, as he is a member of the group and highly involved in its proceedings, as well as an observer of its events and detached from it to that degree that he can recognize group happenings as they occur and see them in perspective as manifestations of disturbed interpersonal relationships. By virtue of his special knowledge he can interpret these to the group accordingly. This interpretative insight is usually given sparingly and then not in direct formulation. For example, a patient would not be told that his behaviour is due to an Oedipus situation, but rather that he seems to be involved in a triangular situation with two others in the group, that this appears to happen repetitiously and that it probably harks back to a similar situation which obtained in the first triangular relationship that he ever came into, i.e. with his mother and father as a child.

Commonly in the more analytic approaches the leader of the group takes a passive permissive attitude—the more shadowy and nebulous he is as a personality in the group, the easier it becomes for its members to pro-

ject their unconscious phantasies on to him. For example, if a patient has reacted in neurotic fashion all his life to the demands of an indulging and overprotective mother, he may tranfer his expectation that this must occur in all future relationships to the psychotherapist; and although he may not be aware that the latter has become a surrogate figure (in this case, the mother) the significance of his behaviour will have appeared in the group and an interpretation of it can be offered to him at an appropriate time. It must be stressed that intellectual insight, i.e. a verbal and reasoned explanation on theoretical lines. for feelings and behaviour, is not the primary aim of therapy. It is rather that the patients should be allowed to become involved in situations and relationships that they themselves provoke as in the foregoing example, albeit they do so unwittingly or with unconscious intent; then under the permissive attitude of the therapist and a benign and understanding atmosphere in the group, to work through these to a more satisfactory and unneurotic conclusion than before.

It can be taken as axiomatic that, in a therapeutic group of this type, the characteristic modes of reaction of its members and their previous methods of participation in human relationships will clearly emerge. For any individual in the group other members come to represent symbolic figures and surrogates are formed from them by the patients, i.e. mother, father, brother, etc.

'Each member of the group projects his unconscious phantasy objects upon various group members and then tries to manipulate them accordingly. Each member will stay in a role assigned to him by another only if it happens to correspond to his own unconscious phantasy and if it allows him to manipulate others into appropriate roles. Otherwise he will try to twist the discussion until the real group does correspond to his phantasy. It is in analysing the role that each group member takes up in dealing with the common group tension that we can demonstrate to him his particular defence mechanism in dealing with some unconscious tension of his own.' [10]

In this way dramas, first created and conceived in infancy and childhood in the family constellation, are played out in the group with representations of symbolic figures in controlled circumstances. The patients work their way into and, this time, through these problems of their pasts which have been repetitively influencing their lives in the present and have manifested as psychiatric illness. A mechanism of therapeutic importance operates in these circumstances known as 'reality testing'. The psychiatrically ill tend to think and act in accordance with their unconscious wishes, drives and needs so that their behaviour comes to be governed by these more than by the demands of reality. This behaviour is often of a regressive order, i.e. what would have been suited to an earlier period in the life of the individual but which is deviant and ineffective in an adult. An example of this is the temper tantrum, perhaps normal in many children, but showing grossly unadjustive behaviour in an adult. The group provides an excellent background to throw this behaviour into sharp perspective so that the individual can see from the reaction of others in the group how unsuited and unproductive his tantrums are under the present reality.

Other mechanisms of a like nature occur in groups. In the present state of knowledge, however, many of these are insufficiently explored and known, and processes such as the means whereby the group becomes a value-forming agent, the nature of group transference, the mechanisms underlying reassurance and communication, etc. are not yet clear. Active work on these and related topics is proceeding in many parts of the world and a body of validated knowledge of group dynamics is slowly being accumulated.[11, 12] At present this is far from a final codification and the statement of Dreikurs and Orsini[6] that 'as with many other therapies we are more certain of possessing an effective method than of knowing the reasons for its effectiveness' is highly pertinent here.

SCOPE AND APPLICATION OF GROUP PSYCHOTHERAPY

Most varieties of psychiatric illness have been treated by means of group psychotherapy. Much of this work has been experimental, not all of it successful and no clear-cut and definitive rules can be given at this stage about the suitability of the diagnostic categories of mental illness for a specific form of group therapy. Certain indications do, however, exist, but each case has to be assessed on its individual merits. In general the largest application of group psychotherapy is in the neuroses—anxiety reactions, phobic states, obsessional neuroses, problems of difficulties in socialization, etc. Personality disturbances have been treated with some success in certain centres, notably the Tavistock Clinic in London,[13] and reports on several groups of schizophrenic patients are to be found in the literature.[14] Other groups have catered for paranoid states, delinquent children, homosexuals and sexual deviants.

In general it may be said that the criteria taken for the suitability of any case for group psychotherapy are much the same as those used for other forms of psychotherapy. They include an ability in the patient to make contact with others, a sufficiency of intelligence and reasoning powers, the ability to communicate verbally and, last but not least, an earnest desire to really set to and deal with the painful psychological problems underlying the illness. In practice it is found that no one technique can be used in global fashion, and the therapy given has to be tailored to fit the needs of the individual case. For this reason thorough assessment of the patients before treatment is necessary, so that only those likely to benefit from it are selected, and these are then allotted to groups which cater for their particular needs. To explain the manner in which this is done and the application of group psychotherapy to a hospital situation, the organization which has been developed at Tara Hospital will be described as illustrative.

Here a considerable amount of group psychotherapy is done on an organized basis, integrated and dove-tailed into the many other hospital activities, as described by Moross and Gillis.[15] Techniques have had to be developed to fit the particular needs of the group of patients catered for by this hospital. For the most part these are sufferers from neuroses and early psychoses; chronic alcoholics and disturbed psychotics are excluded from admission. Only a proportion of the patients need formal psychotherapy, however, and of these only some possess the necessary attributes enabling them to benefit from the more intensive psychotherapeutic procedures. The rest require psychotherapy of a supportive and less anxiety-producing and analytic nature.

To assess the patient's requirements he is referred, in the first place, to what is known as the Selection Group. This is conducted by the Psychotherapy Unit and consists of up to 6 patients at a time who may attend at least once, and at most a few times. The therapists who will treat these patients also attend, and after the group session discussion takes place amongst them about the type of therapy the patient will benefit from. The principle behind the Selection Group is that, as the patient is seen in action in a social group situation, his responses and his suitability for it can easily be judged. It has been found that in this type of group it is possible to assess quite accurately (for the purpose of group therapy) the personality and illness of the patient and his likely response to treatment—as accurately and with less consumption of time as can be done in an individual interview and with batteries of psychological tests.[16]

Broadly speaking, the types of therapeutic groups available at Tara Hospital are as follows:

1. *Intensive Groups.* Here psychotherapy tends to be prolonged and is directed towards the radical re-orientation of fundamental emotional problems and attitudes. Members of these groups are carefully selected in terms of age, sex, social background, diagnosis and psychodynamics so that they will be compatible with and will complement one another in their personalities and their psychopathology. The group normally consists of 6-8 members and the conductor, and meets regularly once or twice a week for an hour at a time. Patients often continue in the group after their discharge from hospital, when they attend as out-patients. Such groups often go on for a year or more and may consist either of the same members from start to finish (closed groups), or alternatively new members may enter them as the older and improved patients leave. It may thus happen that in a group which is, say 2 years old, none of the original members still attend. These groups may or may not be mixed as regards sex. In addition, special groups are formed which deal only with patients suffering from a particular illness or syndrome, i.e. paranoid states, depersonalization, schizophrenics, mothers who have destructive feelings for their children, and so on. All these intensive groups are conducted on group analytic lines as described by Foulkes,[17] and a special training is necessary for those who conduct them.

2. *Supportive Groups.* These are so called to indicate an important function that they fulfil. As a rule they contain patients who for various reasons are not able to benefit from the more intensive groups, and may consist of larger numbers of patients per group—up to 10 to 15 at a time. They meet once or twice a week; supportive groups are organized for in-patients and day patients as well as out-patients. Special methods of group conduction are used so that, quite apart from their supporting and reassuring function, they do at times deal with matters of quite profound psychological significance. The chief difference from the more intensive groups is that anxiety is controlled to a larger degree by the efforts of the therapist, and patients are not allowed to become too disturbed in the group.

In my experience they are not less effective than the intensive groups in their own field of application, i.e. for patients who need the type of therapy that they provide.

CONCLUSIONS

From the foregoing account and examples it will be appreciated that group psychotherapy is a versatile and adaptable form of psychological treatment. It has the undoubted advantage of being a time-saving measure without being patently less effective than other forms of psychotherapy. That this is so, and that it is having a wide application in the treatment of psychiatric illness, is confirmed by the large numbers of reports in the literature. In addition it is absorbingly interesting for the psychotherapist and the social anthropologist because, in the restricted microcosm of the group, the complex patterns of human behaviour that occur as emotions are aroused and people with problems interact on one other, can be clearly seen and studied in the bold relief that is created by large matters occurring in a small compass. Situation after situation is set up in a rich and changing pattern, and the challenge is great to those who form the group to resolve them. In this resolution it is not only the maladjustment and illness of the patients that appears, but courage, endurance and the ever searching desire of people to improve themselves and their conditions—in fact, all the best human qualities—can be seen and appreciated.

In summary then, it is felt that it can fairly be said that group psychotherapy, because of the reasonable period of clinical trial that it has had, its efficacy and the economy that it offers, has earned acceptance as a recognized form of psychiatric treatment, and that it can be elevated to the category of tried remedies of which we have all too few in psychiatry.

OPSOMMING

Daar kan met reg beweer word dat groeppsigoterapie, met die oog op die feit dat dit oor 'n redelike tydperk aan kliniese toetse onderwerp is en bewys van sy doeltreffendheid en ekonomie verleen het, tans aanvaar kan word as 'n erkende vorm van psigiatriese behandeling, en dat dit verhef kan word tot die peil van 'n bewese geneesmiddel, waarvan daar so min in psigiatrie bestaan.

REFERENCES

1. McDougall, W. (1932): *The Energies of Men.* London: Methuen & Co. Ltd.
2. Munn, N. L. (1946): *Psychology.* London: Harrap & Co.
3. Camus, J. and Paquiez, T. (1904): *Isolement et Psychotherapie.* Paris: Alean.
4. Pratt, J. H. (1907): J. Amer. Med. Assoc., **49**, 755.
5. Fidler, J. W. and Standish, C. (1948): Dis. Nerv. Syst., **9**, 24.
6. Dreikurs, R. and Orsini, R. (1954): Amer. J. Psychiat., **110**, 567.
7. Editorial. (1954): Amer. J. Psychiat., **110**, 708.
8. Foulkes, S. H. (1954): Personal communication.
9. Rickman, J. (1950): J. Ment. Sci., **96**, 770.
10. Ezriel, H. (1950): J. Ment. Sci., **96**, 775.
11. Powdermaker, F. and Frank, J. D. (1953): *Group Psychotherapy.* Cambridge: Harvard University Press.
12. Cartwright, D. and Zander, A. (1954): *Group Dynamics.* London: Tavistock Publications.
13. *Report on the Work of the Tavistock Clinic* (1953): London: Tavistock Clinic.
14. Abrahams, J. and Varon, E. (1953): *Maternal Dependency and Schizophrenia.* A Group-Analytic Study. New York: International University Press.
15. Moross, H. and Gillis, L. S. (1955): Med. Proc., **1**, 220.
16. Stone, A., Parloff, M. and Frank, J. (1954): Intern. J. Group Psychother., **4**, 274.
17. Foulkes, S. H. (1948): *Introduction to Group-Analytic Psychotherapy.* London: Heinemann Ltd.

PREPARATIONS AND APPLIANCES

PRELUDIN

A NEW, SAFE WAY TO CONTROL OBESITY

A practical way to control obesity is to administer a *safe* appetite-controlling agent which can be prescribed without fear of serious and undesirable side effects. Obesity is often also associated with hypertension and cardio-vascular disorders and the treatment of such cases presents a problem, since the usual agents frequently produce side effects precluding their use.

Pharmacology: Research carried out in the laboratories of C. H. Boehringer Sohn, Ingelheim am Rhein, resulted in the discovery of a new class of chemical compounds, all containing the tetra-hydro-oxasine ring. Preludin, a member of this group, is 2-phenyl-3 methyl-tetrahydro-1, 4

oxasine hydrochloride and differs chemically from the amphetamines.

The pressor effect of Preludin is insignificant, being only one-thousandth part of that of adrenaline. The

effect of the drug on the nervous system is 7-10 times weaker than that of amphetamine, in tests on rats and dogs. Carbohydrate metabolism is not affected, the glucose tolerance curves showing no significant change.

The overall toxicity of Preludin was determined by tests on white mice. Depending upon method of administration, the LD50 was found to be 3-5 times larger than that of amphetamine.

Pharmacologically, Preludin is a new substance with marked appetite-controlling properties and a minimal effect on the circulatory system and/or body metabolism.

Clinical Evidence: When administered in the usual (25 mg.) therapeutic dose by mouth to normal healthy subjects, Preludin produced no increase in blood pressure. ECG tests, B.M.R. determinations and blood sugar tests revealed no significant changes.

Berneicke[1] instituted a controlled test on 50 obese patients, 37 ambulatory and 13 at first confined to bed and subsequently ambulatory. Together with the drug the patients were ordered a diet of fruit and milk for 2 days a week, but it is fairly certain that these recommendations were not strictly observed. The period of treatment was for 10 weeks with a weekly check on the patient's weight.

The most marked reduction in weight took place in the first 3-4 weeks when patient co-operation was highest, subsequently weight decreased more slowly. On the average, and over 10 weeks, each patient lost 2 lb. per week.

A second series was undertaken by Rostalski[2] on similar lines to the Berneicke test; similar results were obtained. In this instance 50 women were treated (all ambulatory) and an average decrease of 1¼ lb. per week was shown.

In neither series was any significant effect noted upon the circulatory system.

Packaging: Preludin is available in tablets of 25 mg. in tubes of 20 and bottles of 250.

Distributors: Preludin tablets are manufactured by Pfizer Limited for C. H. Boehringer Sohn, Ingelheim am Rhein, registered proprietors of the trade mark and are distributed in the Union of South Africa and Central African Federation by Petersen Limited.

Medical Enquiries: Pfizer Laboratories South Africa (Pty.) Ltd., P.O. Box 7324, Johannesburg.

REFERENCES

1. Berneicke, K. H. (1955): Medizinische Klinic, **12**, 25.
2. Rostalski, M. (1954): Die Medizinische, p. 1110.

NEOTRACIN

LOZENGES, DROPS AND OINTMENT

Neotracin is a combination of 2 antibiotics—Neomycin and Bacitracin.

Neomycin has a broad antibacterial spectrum and is active against most Gram-positive and Gram-negative bacteria, especially on bacteria responsible for the main mucocutaneous infections, viz. staphylococci, streptococci, *B. proteus* and *B. pyocyaneus*.

Bacitracin is active against Gram-positive organisms, e.g. streptococci and staphylococci, pneumococci, gonococci, meningococci, *C. diphtheriae*, gas gangrene bacilli and the spirochaetes of the buccopharyngeal cavity.

Bacitracin is not destroyed by blood, pus or necrotic tissues.

Neotracin therefore has a very broad antibacterial spectrum. It has no toxicity when used locally.

Preparations: 1. *Neotracin Lozenges.* These dissolve slowly, providing high salivary concentrations persisting for an hour.

The anti-infection activity is combined with the anaesthetic action of Amyleine hydrochloride, producing a quick relief of dysphagia and local pains.

The lozenges have a pleasant taste and can be prescribed for children.

Indications: Vincent's angina, tonsillitis, scarlet fever, stomatitis, gingivitis, alveolitis, alveolar pyorrhoea, seasonal bucco-pharyngeal infections, diseases following rhinopharyngitis, antisepsis of the oral cavity after tooth extraction or tonsillectomy.

Dosage: 8 to 10 lozenges a day.

2. *Neotracin* O.R.L. Drops. These are active on pathogens of the rhinopharynx and auditory tract, especially on staphylococci, streptococci, *M. catarrhalis*, pneumococci and *B. pyocyaneus*.

Neotracin O.R.L. Drops, in instillations or atomized, provide high antibiotic levels in the nasal cavity, sinuses and auditory tract.

Diffusion and penetration of the antibiotic is eased by the vasoconstrictive activity of Naphazoline nitrate on congested mucous areas.

3. *Neotracin* Dermal and Ophthalmic Ointment. This is very efficient (without toxicity) in the treatment of cutaneous or mucous infections by pyogenic cocci, staphylococci, streptococci; polymicrobic infections; and infections due to strains resistant to other antibiotics.

Distributors in South Africa: Fisons Chemicals (S.A.) (Pty.) Ltd., Triangle House, 226 Market Street, Johannesburg.

MEASUROLL (DAVIS & GECK)

Measuroll pack is Davis & Geck's new and unique packaging for the finest surgical silk, cotton and stainless steel available.

Self-Dispensing: Davis & Geck's *Measuroll* is the handy tape-measure pack. One snip of the scissors gives you 20 strands of silk or cotton or 10 strands of multistrand stainless steel sutures of any desired length, protected and identified right up to point of use.

Convenient and Easy to Use: With *Measuroll* there is no need to measure and cut individual strands or to wrap them for sterilization. The paper tape is calibrated in inches; just withdraw the suture length desired and cut with sharp scissors.

Economical: *Measuroll* not only saves time and money but also material. *Measuroll* products can be used in the amount required and in the exact lengths desired. Should there be unused strands remaining, the protective package is ready to be re-sterilized and used. With all this convenience,

Measuroll products cost no more than spooled products.

Time-Saving: A half-hour of preparation time is saved with every 10-yard roll of *Measuroll*. There

is no need to transfer material from spool to reel before it is cut to desired lengths.

Note: These products are available at the same price as the standard packs of similar materials.

Distributors: Chas. F. Thackray (S.A.) (Pty.) Ltd., 23 Orion House, 235 Bree Street, Johannesburg and 127 Boston House, Strand St., Cape Town.

SURGILOPE (DAVIS & GECK)

STERILE PACK SUTURES: ANACAP SURGICAL SILK: SURGICAL COTTON

Davis & Geck's *Surgilope* Sterile Pack sutures are packaged in sealed foil envelopes containing inner glassine envelopes of dry, pre-cut lengths of black braided silk or white twisted surgical cotton.

Surgilope Sterile Pack sutures eliminate tubes, solution and jars. There are no suture tubes to break, the sutures are ready for use immediately they are removed from the envelopes. *Surgilope* Sterile Pack sutures save up to 5% in cost as compared with sterile silk and cotton in tubes.

Greatly Improved Silk: *Surgilope* packaging enables Davis & Geck to wind coils of silk and cotton sutures loosely and utilize sterilization techniques that give the surgeon products of better tensile strength and handling qualities.

Reduced Handling: The light, handy boxes of foil packages store in a small space, require no special handling and open instantly.

No Sterlization Needed: While it is not recommended, and not necessary, the outer foil envelope may be treated as follows: Submerge in a 1:1,000 aqueous solution of benzalkonium chloride (e.g. Zephiran Chloride), and keep in solution for 8 hours. *Surgilope* silk and cotton may also be sterilized by steam autoclaving at 15 lb. for 30 minutes or 27 lb. for 10 minutes.

Note: These products are available at the same price as the standard packs of similar materials.

Distributors: Chas. F. Thackray (S.A.) (Pty.) Ltd., 23 Orion House, 235 Bree Street, Johannesburg and 127 Boston House, Strand Street, Cape Town.

SIOPEL CREAM

A NEW INCONSPICUOUS PROTECTIVE FOR MEDICAL USE

I.C.I. South Africa (Pharmaceuticals) Limited announce the introduction of *Siopel* Cream, a completely new protective skin cream introduced for medical use after detailed clinical trials and prolonged investigations in the I.C.I. Research Laboratories.

Siopel Cream contains a specially selected silicone fluid with marked water-repellent properties, formulated with an emollient vegetable oil as a finely emulsified oil-in-water cream. It is non-greasy, non-irritant and inconspicuous when applied to the skin. Furthermore, it is free from solid inorganic material such as Bentonite and Talc.

It is especially indicated in the post-operative care of surgical patients with ileostomies, colostomies, fistulae and after haemorrhoidectomy to prevent excoriation and inflammation of the skin by body fluids.

Used as a barrier cream, it will reduce the incidence of chronic dermatoses in persons sensitive to antibiotics, local anaesthetics and in the management of occupational dermatoses caused by water-soluble irritants.

Siopel Cream is available in 50 gm. collapsible tubes, and 500 gm. containers will be available shortly.

METIMYD OPHTHALMIC SUSPENSION

Description: Each c.c. of *Metimyd* Ophthalmic Suspension contains 5 mg. (0.5%) microcrystalline

prednisolone acetate (*Meticortelone* Acetate) suspended in an isotonic buffered and preserved solution of 100 mg. (10%) sulphacetamide sodium for topical use in the eye and, when desired, in the ear or nose.

Advantages: The dual action of prednisolone acetate and sulphacetamide sodium, as provided in *Metimyd* Ophthalmic Suspension, ensures prompt relief from inflammatory and allergic eye conditions and simultaneously checks or prevents infection. Through the property of the steroid to inhibit fibroblastic formation and to reduce scarring and vascularization, *Metimyd* Ophthalmic Suspension protects the eye against the possibility of permanent injury. Studies have shown that when a corticosteroid-antibacterial combination, such as *Metimyd* Ophthalmic Suspension, is used in the treatment of ocular infection, inflammatory signs are less marked and relief from symptoms is quicker.

Indications: *Metimyd* Ophthalmic Suspension is indicated in inflammatory and allergic diseases of the eye, especially where an antibacterial effect is desirable.

Packing: *Metimyd* Ophthalmic Suspension, 5 c.c. dropper bottle.

Metimyd Ophthalmic Suspension is manufactured by Scherag (Pty.) Ltd., P.O. Box 7539, Johannesburg, for and under the formula and technical supervision of Schering Corporation, Bloomfield, New Jersey.

METICORTELONE ACETATE AQUEOUS SUSPENSION

Description: Each c.c. of *Meticortelone* Acetate Aqueous Suspension contains 25 mg. prednisolone acetate for intra-articular or intramuscular injection.

Advantages: Intra-articular therapy of rheumatoid arthritis and osteoarthritis with *Meticortelone* Acetate Aqueous Suspension provides sustained relief from pain and stiffness, and suppression of acute and chronic inflammation in a majority of accessible joints. Relief in joints so treated is generally secured within 24 hours. Benefit lasts from an average of 8 days to a few weeks in some cases. With aseptic precautions the simple procedure employed in intra-articular injection of the *Meticortelone* Acetate Aqueous Suspension is safe. Untoward effects are rare and usually are mild and self-limiting.

Meticortelone Acetate Aqueous Suspension for intramuscular injection provides effective systemic therapy for patients who cannot take oral preparations.

Indications: *Meticortelone* Acetate Aqueous Suspension intra-articularly is indicated in rheumatoid arthritis, osteoarthritis, post-traumatic bursitis, and for intramuscular use when oral administration is not feasible.

Precautions: Intra-articular injection of *Meticortelone* Acetate Aqueous Suspension is contra-indicated when infection is present or suspected in or near affected joints or bursae. Systemic effects are not obtained with local injection.

When *Meticortelone* Acetate Aqueous Suspension is used for systemic therapy, the usual precautions with corticosteroid therapy should be observed.

Packings: *Meticortelone* Acetate Aqueous Suspension, 25 mg. per c.c. Multiple Dose Vials, 3 c.c. and 10 c.c.

Meticortelone Acetate Aqueous Suspension is manufactured by Schering Corporation, Bloomfield, New Jersey, and is distributed in the Union by Scherag (Pty.) Limited, P.O. Box 7539, Johannesburg.

CORICIDIN FORTÉ CAPSULES

Description: Each red and yellow *Coricidin* Forté Capsule contains 4 mg. chlorprophenpyridamine maleate, 190 mg. salicylamide, 130 mg. phenacetin, 30 mg. caffeine, 50 mg. ascorbic acid and 1.25 mg. methamphetamine hydrochloride.

Advantages: *Coricidin* Forté provides clinically established[1, 2] *Coricidin*, fortified with 2 extra 'cold'-control factors.

Ascorbic acid is provided in sufficient dosage to help meet the sharply increased daily requirements for this vitamin under stress of illness. Depletion of ascorbic acid, particularly in febrile diseases, is a possible contributing factor in lowered resistance to infection.[3, 4]

Methamphetamine alleviates the feeling of depression and, by its ephedrine-like decongestant action, helps clear the upper respiratory tract and assures added nasal comfort. *Coricidin* Forté also contains a therapeutic dose (4 mg.) of *Chlor-Trimeton*.

Indications: *Coricidin* Forté is indicated for an extra measure of relief and comfort, even in severe colds.

Packings: *Coricidin* Forté Capsules, bottles of 10 and 100.

Coricidin Forté is manufactured by Schering Corporation, Bloomfield, New Jersey, and is distributed in the Union by Scherag (Pty.) Limited, P.O. Box 7539, Johannesburg.

REFERENCES

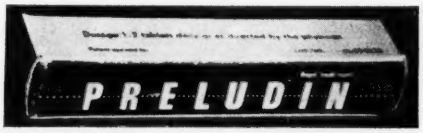
(1) Ziporyn, M.: Med. Times **78** : 205, 1950. (2) Manson, M. H., Wells, R. L., Whitney, L. H. and Babcock, G., Jr.: Internat. Arch. Allergy, **1** : 265, 1951. (3) Pollack, H. and Halpern, S. L.: *Therapeutic Nutrition*, Washington, D.C., National Academy of Sciences—National Research Council, 1952, p. 37. (4) Reid, M. E., *in* Sebrell, W. H., Jr. and Harris, R. S.: *The Vitamins*, New York, Academic Press, Inc., 1954, Vol. 1, pp. 339-242.

PREPARATE EN TOESTELLE

PRELUDIN

'N NUWE, VEILIGE MANIER OM SWAARLYWIGHEID TE KONTROLEER

Die praktiese manier om swaarlywigheid te kontroleer, is om 'n *veilige* middel toe te dien wat die eetlus aan bande sal lê, en wat voorgeskryf kan word sonder enige vrees vir ernstige of onwenslike bykomstige effekte. Swaarlywigheid gaan dikwels gepaard met hipertensie en kardiovaskulêre versteurings, en die behandeling van sulke gevalle stel 'n probleem aangesien die gewone middels dikwels bykomstige effekte het wat dit onmoontlik maak om hulle te gebruik.



Farmakologie: Navorsingswerk wat in die laboratoriums van C. H. Boehringer Sohn, Ingelheim am Rhein, gedoen is, het uitgeloop op die ontdekking van 'n nuwe klas chemiese samestellings, elkeen waarvan die tetra-hidro-oksasien-kring bevat. Preludin, 'n lid van hierdie groep, is 2-feniel-3 metiel-tetrahidro-1, 4 oksasien-hidrochloried en verskil chemies van die amfetamiene.

Die pressor-effek van Preludin is onbenullig. Dit is slegs een-duisendste deel van dié van adrenalien. Die effek van die middel op die senuweegestel is 7-10 keer swakker as dié van amfetamien. Dit is bewys deur die toetse wat met rotte en honde gedoen is. Die koolhidraatmetabolisme word nie geaffekteer nie, en die glukose-verdraagsaamheidskurwes toon geen betekenisvolle verandering nie.

Die globale toksisiteit van Preludin is bepaal deur toetse met wit muise. Na gelang van die toedieningsmetode is daar bevind dat die LD50 3-5 keer groter is as in die geval van amfetamien.

Farmakologies is Preludin 'n nuwe stof met 'n opvallende vermoë om die eetlus te kontroleer en 'n minimale effek op die bloedsomloopstelsel en/of die liggaamsmetabolisme.

Kliniese Bewyse: Waar dit gebruik is deur normaal gesonde pasiënte in die gewone mondelinge terapeutiese dosis van 25 mg. het Preludin geen verhoging van die bloeddruk tot gevolg gehad nie. ECG-toetse, B.M.R.-vasstelings en bloedsuikertoetse het geen betekenisvolle veranderings aan die lig gebring nie.

Berneicke[1] het 'n gekontroleerde proefneming met 50 swaarlywige pasiënte gedoen; 37 van hulle was in staat om rond te loop, en 13 moes aanvanklik die bed hou maar kon later ook rondloop. Saam met die middel is 'n dieet van vrugte en melk op 2 dae van die week voorgeskryf, maar dit is feitlik seker dat hierdie aanbevelings nie streng nagekom is nie. Die behandeling het 10 weke geduur, en die pasiënte is elke week geweeg.

Die opvallendste vermindering van gewig het plaasgevind gedurende die eerste 3-4 weke toe pasiëntsamewerking op sy hoogste was. Later het hul gewig stadiger afgeneem. Oor die algemeen en oor 'n tydperk van 10 weke het iedere pasiënt twee pond per week verloor.

'n Tweede reeks proefnemings is gedoen deur Rostalski[2] op 'n grondslag wat met die Berneicke-toets ooreengestem het. In hierdie geval is 50 vrouens, almal van wie kon rondloop, behandel, en 'n gemiddelde gewigsvermindering van 1¼ pond per week is aangeteken.

In geeneen van die twee reekse is enige betekenisvolle effek op die bloedsomloopstelsel waargeneem nie.

Verpakking: Preludin is verkrygbaar in tablette van 25 mg., verpak in buisies van 20 en in bottels van 250.

Verspreiders: Preludin-tablette word vervaardig deur Pfizer Limited vir C. H. Boehringer Sohn, Ingelheim am Rhein, die geregistreerde eienaars van die handelsmerk, en word in die Unie van Suid-Afrika en in die Federasie van Sentraal-Afrika deur Petersen Limited versprei.

Mediese Navrae: Pfizer Laboratories South Africa (Pty.) Ltd., Posbus 7324, Johannesburg.

VERWYSINGS

1. Berneicke, K. H. (1955): Medizinische Klinic, **12**, 25.
2. Rostalski, M. (1954): Die Medizinische, bl. 1110.

NEOTRACIN

TABLETJIES, DRUPPELS EN SALF

Neotracin is 'n samestelling van 2 antibiotica—neomisien en basitrasien.

Neomisien het 'n breë bakteriebestrydende spektrum en tree aktief op teen die meeste Gram-positiewe en Gram-negatiewe bakterieë, veral teen die bakterieë wat verantwoordelik is vir die belangrikste slym-huidinfeksies, nl. stafilokokki, streptokokki, *B. proteus* en *B. pyocyaneus*.

Basitrasien tree aktief op teen Gram-positiewe organismes, bv. streptokokki en stafilokokki, pneumokokki, gonokokki, meningokokki. *C. diphtheriae*, gas-gangreen-bassille en die spirochete van die mond- en keelholte.

Basitrasien word nie vernietig deur bloed, etter of nekrotiese weefsels nie.

Neotracin het derhalwe 'n baie breë anti-bakteriese spektrum. Dit is nie toksies as dit plaaslik gebruik word nie.

*Preparate*H 1. *Neotracin*-tabletjies. Hulle los stadig op en verskaf 'n hoë speekselkonsentrasie wat 'n uur lank doeltreffend bly.

Die infeksiebestrydende bedrywigheid is verenig met die narkotiese uitwerking van amileine-hidrochloried wat vinnige verligting van disfagie en plaaslike pyn aan die pasiënt besorg.

Hierdie tabletjies het 'n aangename smaak en kan vir kinders voorgeskryf word.

Indikasies: Vincent se angina, mangelontsteking, skarlakenkoors, mondontsteking, tandvleisontsteking, tandkasontsteking, alveolêre piorree, seisoensmond- en -keelinfeksies, die siektes wat op rinofaringitis volg, antisepse van die mondholte na die uittrek van 'n tand of tonsillektomie.

Dosis: 8 tot 10 tabletjies per dag.

2. *Neotracin*-O.R.L.-druppels. Hulle tree aktief op teen die patogene van die rinofarinks en die gehoorkanaal—veral teen stafilokokki, streptokokki, *M. catarrhalis*, pneumokokki en *B. pyocyaneus*.

Neotracin-O.R.L.-druppels, in die vorm van 'n indrupping of 'n stuifsel, verskaf 'n hoë antibiotiese peil in die neusholte, die sinusholtes en die gehoorkanaal.

Diffusie en indringing van die antibioticum word vergemaklik deur die vaatvernouende effek van nafasoliennitraat op die verstopte slymgebiede.

3. *Neotracin*-huid- en -oftalmiese salf. Dit is besonder doeltreffend (sonder toksisiteit) by die behandeling van vel- of slymaandoenings deur piogeniese kokki, stafilokokki, streptokokki; polimikrobiese infeksies; en die infeksies wat veroorsaak word deur die soorte wat weerstand teen ander antibiotica bied.

Verspreiders in Suid-Afrika: Fisons Chemicals (S.A.) (Pty.) Ltd., Triangle-gebou, Markstraat 226, Johannesburg.

MEASUROLL (DAVIS & GECK)

Measuroll is Davis & Geck se nuwe en unieke verpakkingsmetode vir die allerbeste chirurgiese sy, katoen en vleklose staal wat vandag verkrygbaar is.

Self-uitdelend: Davis & Geck se *Measuroll* is die handige maatband-pakkie. Knip net een maal met 'n skêr, en u het 20 drade sy of katoen, of 10 drade veelstringhegtingsmateriaal van vleklose staal van enige verlangde lengte—beskerm en geïdentifiseer tot op die stadium wanneer u dit gebruik.

Gerieflik en Maklik om te Gebruik: Met *Measuroll* is dit nie nodig om individuele drade te meet en af te knip, of om hulle toe te draai vir sterilisasiedoeleindes nie. Die papierband is in duime gemerk. Trek net die verlangde lengte hegtingsmateriaal uit, en knip dit met 'n skerp skêr af.

Ekonomies: *Measuroll* bespaar nie alleen tyd en geld nie, maar ook materiaal. *Measuroll*-produkte kan gebruik word in die vereiste hoeveelhede en in presies die verlangde lengtes. As daar enige ongebruikte drade oorbly, kan die beskermende pakkie opnuut gesteriliseer en gebruik word. En met al hierdie voordele kos *Measuroll* niks meer as opgerolde produkte nie.

Bespaar Tyd: 'n Halfuur se voorbereidingstyd word bespaar met iedere rol *Measuroll* van 10 jaart wat gebruik word. Dit is nie nodig om die materiaal van die spoel na die rolletjie oor te bring voordat dit in die verlangde lengtes geknip word nie.

Let wel: Hierdie produkte is verkrygbaar teen dieselfde pryse as wat u vir standaard-verpakkings van dergelike materiaal betaal.

Verspreiders: Chas. F. Thackray (S.A.) (Pty.) Ltd., Orion-gebou 23, Breestraat 235, Johannesburg en Boston House 127, Strandstraat, Kaapstad.

SURGILOPE (DAVIS & GECK)

STERIELE HEGTINGSMATERIAAL IN PAKKIES: ANACAP, CHIRURGIESE SY: CHIRURGIESE KATOEN

Davis & Geck se steriele *Surgilope*-hegtingsmateriaal in pakkies is verseël in bladmetaalkoeverte bevattende 'n binne-glassien-koevert met droë, voorafgeknipte lengtes swart, gevlegte sy, of wit, gedraaide chirurgiese katoen.

Steriele *Surgilope*-hegtingsmateriaal in pakkies skakel die gebruik van buise, oplossings en flesse uit. Daar is geen hegtingsmateriaalbuisies wat gebreek moet word nie. Die hegtingsmateriaal is gereed vir gebruik onmiddellik nadat dit uit die koevert gehaal is. Steriele *Surgilope*-hegtingsmateriaal in pakkies bespaar tot 5% van die koste in vergelyking met steriele sy en katoen in buisies.

'n Grootliks Verbeterde Sy: *Surgilope*-verpakking stel Davis & Geck in staat om spoele sy- en katoenhegtingsmateriaal liggies op te rol en om gebruik te maak van sterilisasie-tegnieke wat produkte met 'n groter trekvastheid en beter hanteringshoedanighede tot beskikking van geneeshere stel.

Verminder Hantering: Die ligte, handige dosie met bladmetaalpakkies kan in 'n klein ruimte weggebêre word. Dit verg geen spesiale hantering nie, en kan in 'n kits oopgemaak word.

Geen Sterilisasie Nodig Nie: Terwyl dit nie aanbeveel word of nodig is nie, kan u die buite-bladmetaalkoevert indien u wil soos volg behandel: Dompel dit in 'n waterige oplossing (1:1,000) van bensalkoniumchloried (Zephiranchloried, byvoor-

beeld), en hou dit 8 uur lank in die oplossing. *Surgilope*-sy en -katoen kan ook gesteriliseer word in 'n stoomdruk-sterilisator—15 pond, 30 minute lank, of 27 pond, 10 minute lank.

Let Wel: Hierdie produkte is verkrygbaar teen dieselfde pryse as wat u vir standaard-verpakkings van dergelike materiaal betaal.

Verspreiders: Chas. F. Thackray (S.A.) (Pty.) Ltd., Orion-gebou 23, Breestraat 235, Johannesburg en Boston House 127, Strandstraat, Kaapstad.

SIOPEL-POMMADE

'N NUWE, ONOPSIGTELIKE BESKERMINGSMIDDEL VIR MEDIESE GEBRUIK

I.C.I. South Africa (Pharmaceuticals) Limited kondig die beskikbaarstelling aan van *Siopel*-pommade, 'n heeltemal nuwe beskermende velpommade vir mediese gebruik. Die beskikbaarstelling van hierdie pommade het gevolg op uitgebreide kliniese proefnemings en langdurige ondersoekingswerk in die navorsingslaboratoriums van I.C.I.

Siopel-pommade bevat 'n spesiale uitgesoekte silikoonvloeistof met opvallende waterafstotende hoedanighede. Dit is saamgestel met 'n versagtende plantaardige olie as 'n fyn geëmulsifieerde olie-in-water-pommade. Dit is nie-vetterig, nieprikkelend en heeltemal onopsigtelik as dit aan die vel gewend word. Daarbenewens bevat dit geen soliede anorganiese stowwe soos bentoniet en talk nie.

Dit word spesiaal aangedui vir die na-operasie behandeling van chirurgiese pasiënte met ileostomieë, kolostomieë en fistels, asook vir gebruik na die uitsnyding van aambeie, om afskilfering en inflammasie van die vel deur die liggaamsvloeistowwe te voorkom.

Indien dit as 'n versperringspommade gebruik word, sal dit die voorkoms van kroniese dermatose teëwerk by persone wat gevoelig is vir antibiotica en plaaslike verdowingsmiddels; dit is ook nuttig vir die beheer van beroepsdermatose wat veroorsaak word deur prikkelmiddels wat in water oplosbaar is.

Siopel-pommade is verkrygbaar in opvoubare buisies van 50 gm., en houers van 500 gm. sal binnekort beskikbaar wees.

METIMYD OOGSUSPENSIE

Beskrywing: Iedere k.s. *Metimyd* Oogsuspensie bevat 5 mg. (0.5%) mikrokristalvormige prednisoloonasetaat (*Meticortelone*-asetaat), gesuspendeer in

'n gebufferde, isotoniese, en bewaarde oplossing van 100 mg. (10%) natrium-sulfasetamied. Dit is bedoel vir plaaslike gebruik in die oog en ook, waar wenslik, in die oor en neus.

Voordele: Deur die tweevoudige werking van prednisoloonasetaat en natrium-sulfasetamied, soos in *Metimyd* Oogsuspensie verskaf, word spoedige verligting van ontsteking en allergiese reaksies van die oog verkry, en gelyktydig word besmetting beheer en verhoed. Die vermoë van die steroïed om fibroblastiese formasie te verhoed en vaskularisasie en littekenformasie te verminder, maak dit vir *Metimyd* Oogsuspensie moontlik om die oog teen moontlike permanente skade te beskerm. Deur studies is aangedui dat die gebruik van 'n samestelling van kortikosteroïed en 'n antibakteriese middel, soos *Metimyd* Oogsuspensie, in gevalle van oogbesmetting veel gouer verligting verskaf en die kenmerkende tekens van ontsteking minder in die oog lopend is.

Anduidings: *Metimyd* Oogsuspensie word aangedui vir gebruik in gevalle van toestande van die oog waar ontsteking en allergiese reaksies voorkom, en veral waar 'n antibakteriese werking ook raadsaam beskou word.

Verpakking: *Metimyd* Oogsuspensie, 5 k.s. bottel met indrup-toestel.

Metimyd Oogsuspensie word vervaardig deur Scherag (Pty.) Ltd., Posbus 7539, Johannesburg, namens en onder die formule en tegniese toesig van Schering Corporation, Bloomfield, New Jersey.

METICORTELONE-ASETAAT WATERIGE SUSPENSIE

Beskrywing: Iedere k.s. *Meticortelone*-Asetaat Waterige Suspensie bevat 25 mg. prednisoloonasetaat vir inspuiting in gewrigsholtes of spiere.

Voordele: Die terapie van rumatiekagtige gewrigsontsteking en osteo-artritis deur die binnegewrigse toediening van *Meticortelone*-Asetaat Waterige Suspensie verskaf langdurige verligting van pyn en styfheid, en onderdruk akute en kroniese ontsteking in die meerderheid van bykombare gewrigte. In gewrigte so behandel word verligting gewoonlik binne 24 uur teweeggebring, en die voordele duur van gemiddeld 8 dae tot selfs so lank as 'n paar weke in sommige gevalle. Die binnegewrigse inspuiting van *Meticortelone*-Asetaat Waterige Suspensie is veilig wanneer 'n aseptiese tegniek toegepas word. Ongewenste uitwerkings kom selde voor en is dan ook gewoonlik van 'n ligte aard en selfbeperkend.

As binnespierse inspuiting verskaf *Meticortelone*-Asetaat Waterige Suspensie doeltreffende sistemiese

behandeling aan pasiënte aan wie mondelingstoegediende preparate nie gegee kan word nie.

Gebruiksaanduidings: Die binnegewrigse toediening van *Meticortelone*-Asetaat Waterige Suspensie word aangedui in rumatiekagtige gewrigsontsteking, osteo-artritis en slymbeursontsteking na trauma; binnespierse toediening word aangedui in gevalle waar mondelinge toediening nie aanneemlik is nie.

Voorsorgmaatreëls: Die binnegewrigs inspuiting van *Meticortelone*-Asetaat Waterige Suspensie is onraadsaam waar besmetting van of naby die aangetaste gewrig of slymbeurs teenwoordig is of verdink word. Met plaaslike inspuiting word 'n sistemiese uitwerking nie verkry nie. Wanneer pasiënte aan sistemiese terapie met *Meticortelone*-Asetaat Waterige Suspensie onderwerp word, moet die gewone voorbehoed-maatreëls met kortikoïed terapie waargeneem word.

Verpakkings: *Meticortelone*-Asetaat Waterige Suspensie, 25 mg. per k.s. Flessies vir veelvoudige dosisse, 3 k.s. en 10 k.s.

Meticortelone-Asetaat Waterige Suspensie is vervaardig deur Schering Corporation, Bloomfield, New Jersey, en is uitgereik deur Scherag (Edms.) Beperk, Posbus 7539, Johannesburg.

CORICIDIN FORTÉ KAPSULES

Beskrywing: Elke rooi en geel kapsule bevat 4 mg. chlorprofenpiridamien maleaat, 190 mg. salisielamied, 130 mg. fenasetien, 30 mg. kaffeïen, 50 mg. askorbiensuur en 1.25 mg. metamfetamien hidrochloried.

Voordele: *Coricidin* Forté verskaf klinies beproefde[1, 2] *Coricidin*, versterk met twee ekstra verkoue-kontrool faktore.

Askorbiensuur word verskaf in genoegsame dosismaat om verhoogde daaglikse benodigdhede van die vitamien gedurende siekte-spanning te voorsien. Vermindering van askorbiensuur, veral in koorsige ongesteldhede, is moontlik 'n bykomende faktor in die verlaging van weerstand teen besmetting.[3, 4]

Metamfetamien verlig neerslagtigheid en, soos efedrien, verwyder kongestie van die asemhalingsgange. *Coricidin* Forté bevat ook 'n terapeutiese dosis (4 mg.) van *Chlor-Trimeton*.

Aanduidings: *Coricidin* Forté word aangedui in die behandeling van selfs ernstige verkoue, om ekstra verligting en opbeuring teweeg te bring.

Verpakking: *Coricidin* Forté kapsules, bottles met 10 en 100.

Coricidin Forté is vervaardig deur Schering Corporation, Bloomfield, New Jersey, en is uitgereik deur Scherag (Edms.) Beperk, Posbus 7539, Johannesburg.

REFERATE

(1) Ziporyn, M.: Med. Times **78** : 205, 1950. (2) Manson, M. H., Wells, R. L., Whitney, L. H. en Babcock, G., Jr.: Internat. Arch. Allergy, **1** : 265, 1951. (3) Pollack, H. en Halpern, S. L.: *Therapeutic Nutrition*, Washington, D.C., National Academy of Sciences—National Research Council, 1952, bl. 37. (4) Reid, M. E. *in* Sebrell, W. H., Jr. en Harris, R. S.: *The Vitamins*, New York, Academic Press, Inc., 1954, Vol. 1, bl. 339-342.

NOTES AND NEWS · BERIGTE

Dr. I. Schrire, formerly of 1 Hof Street, Cape Town, is now working for the Medical Research Council, England, at the Department of Endocrinology, New End Hospital, London. He is also in private practice at 83 Harley Street, London, W.1.

* * *

Dr. J. A. Pratt-Johnson, of Johannesburg, has been awarded a Fellowship at the Wilmer Eye Institute of the Johns Hopkins Hospital, Baltimore, U.S.A. for one year, to study corneal grafting.

Dr. Pratt-Johnson left on 11 July 1956 via the United Kingdom, where he will spend a short time on professional work before departing for the United States.

* * *

Dr. M. Shapiro, Director of the South African Blood Transfusion Service, Johannesburg (and a member of the Advisory Board of *Vox Sanguinis*, the official organ of the International Society of Blood Transfusion) will attend the Congress of this Society to be held in Boston in September 1956.

Dr. Shapiro is a member of the International Bureau of this Society and he has accepted an invitation to read a paper on *The Organization of a Blood Transfusion Service*.

He will also attend a meeting of the American Society for Human Genetics, where he will read a paper on *The Inheritance of the Henshaw Factor*.

Dr. Shapiro will return in time to be present at the September meeting of the South African Medical Council.

IN MEMORIAM: DR. T. J. J. JEPPE

We deeply regret to record the death of Dr. T. J. J. Jeppe, casualty officer at the Boksburg-Benoni Hospital for the last 4 years.

Dr. Jeppe was born in Pretoria 70 years ago and obtained his M.R.C.S. (Eng.), L.R.C.P. (Lond.) in 1913. He had been in private practice in various parts of the Union and served in both World Wars.

Dr. Jeppe leaves a widow, a son and 2 daughters.

COLLEGE OF PHYSICIANS AND SURGEONS OF SOUTH AFRICA

The first Annual General Meeting of this College will be held in Johannesburg on Monday 6 August 1956 at 2.30 p.m. It is expected that, the next day, the first Council will meet to elect the President and officers of the College. The inaugural ceremony will be held the next evening.

SUPPLY OF REPRINTS

Reprints may be obtained at cost according to the following schedule of charges:

	No. of copies								
	50			100			200		
No. of Pages	£	s.	d.	£	s.	d.	£	s.	d.
2	1	11	7	1	15	3	2	2	6
4	4	5	4	4	9	2	4	16	10
6	5	19	0	6	5	3	6	17	9
8	8	7	0	8	16	2	9	14	6
10	9	18	3	10	9	4	11	11	6
12	12	11	4	13	4	10	14	11	10

The extra charge for reprints on art paper is about 5%.

WITWATERSRAND MEDICAL LIBRARY

LIBRARY FACILITIES

(TELEPHONE: 44-1492, EXTENSION 10)

The Library is supported chiefly by the University but also receives annual grants from the Medical Association of South Africa and the Transvaal Provincial Council. Any member of the Medical Association and any qualified professional member of the staff of a hospital may borrow 2 items at a time. Books are lent for a period of 2 weeks, and may be renewed for a further 2 weeks if not in demand. Members of the Medical School staff may borrow 8 items at a time.

To meet the demand for journals, the period of loan is limited to one week. The demand on journals is constant and heavy and this restriction of the loan period is in the interests of all borrowers.

Where books are sent by post to country members of the Medical Association, the Library pays the outgoing postal and registration charges. The borrower pays the return charges. All items must be sent by registered post, and must be securely wrapped in carboard packing for protection with one end of the parcel left open so that they may be sent at the cheaper book post rate.

Medical practitioners who are not members of the Medical Association or graduates of the University are required to pay a deposit of 2 guineas before borrowing books. Postal charges are debited against this deposit.

Practitioners resident in the Transvaal and Natal are served by this Library, those in the Orange Free State and the Cape Province by the Medical Library, University of Cape Town, Mowbray, C.P.

The Library staff will make every effort to supply required references, borrowing material from other libraries where necessary, or sending to Washington or London for microfilm copies of articles not available in South Africa.

The Committee reserves the right to refuse service to any practitioner who wilfully fails to comply with the Library regulations.

BOOKS RECENTLY RECEIVED

American Heart Association. Cerebral vascular diseases. New York: Grune and Stratton, 1955.

Association for Research in Nervous and Mental Disease. Neurology and psychiatry in childhood. Baltimore: Williams and Wilkins, 1954. (Research Publications no. 34.)

Bailey, H. Short practice of surgery; 10 ed. London: Lewis, 1956.

Bailey, H. Surgery for nurses; 8 ed. London: Lewis, 1954.

Barlow, R. B. Introduction to chemical pharmacology. London: Methuen, 1955.

Belcher, J. R. Thoracic surgical management; 2 ed. London: Bailliére, 1955.

Biasutti, R. Le razze e i popoli della terra; 2 ed. Torino: Unione tipografico-editrice torinese. 1953. Library has v. 1, 2 and 3.

Bromage, P. R. Spinal epidural analgesia. Edinburgh: Livingstone, 1954.

Chamberlain, E. N. Textbook of Medicine for nurses; 6 ed. Bristol: Wright, 1954.

Deaver, G. G. Cerebral palsy. New York: Institue for Physical Medicine and Rehabilitation, 1955.

Gillis, L. Amputations. London: Heinemann, 1954.

Grahmann, R. Urgeschichte der Menschheit; 2 Aufl. Stuttgart: Kohlhammer, 1955.

Hall, I. S. Diseases of the nose, throat and ear; 6 ed. Edinburgh: Livingstone, 1956.

Harlow, F. W. Modern surgery for nurses; 3 ed. London: Heinemann, 1954.

Hershenson, B. B. Obstetrical anaesthesia. Springfield: Thomas, 1955.

Joule, J. W. Textbook of medicine for nurses; 2 ed. London: Lewis, 1955.

Jung C. G. Modern man in search of a soul. London: Routledge, repr. 1955.

Koller, Th. Thrombosis and embolism. Basel: Schwalbe, 1955.

Lee, J. A. Synopsis of anaesthesia; 3 ed. Bristol: Wright, 1953.

Longmore, T. Medical photography; 5 ed. London: Focal Press, 1955.

McAlpine, D. Multiple sclerosis. Edinburgh: Livingstone, 1955.

Metcalfe, R. L. Organic insecticides. New York: Interscience, 1955.

Michaelis, A. R. Research films in biology, anthropology, psychology and medicine. New York: Academic Press, 1955.

Mitchell, G. A. G. Cardiovascular innervation. Edinburgh: Livingstone, 1956.

Moncrieff, A. Progress in nursing. London: Arnold, 1954.

Nash, D. F. E. Principles and practice of surgical nursing. London: Arnold, 1955.

Oster, G. Physical techniques in biological research. v. 1. New York: Academic Press, 1955.

O'Sullivan, E. N. M. Textbook of occupational therapy. London: Lewis, 1955.

Phaire, T. The boke of chyldren. Edinburgh: Livingstone, repr. 1955.

Platt, Sir H. Modern trends in orthopaedics; 2 series. London: Butterworth, 1956.

Prick, J. J. G. Thallium poisoning. Amsterdam: Elsevier, 1955.

Pullen, R. N. Pulmonary diseases. London: Kimpton, 1955.

Ramon y Cajal, S. Studies on the cerebral cortex. London: Lloyd-Luke, 1955.

Rothman, S. Physiology and biochemistry of the skin. Chicago: Univ. Press, 1954.

Sapeika, N. Actions and uses of drugs; 4 ed. Cape Town: Balkema, 1955.

Sternberg, T. H. Therapy of fungus diseases. Boston: Little, 1955.

Topley, W. W. C. Principles of bacteriology and immunity; 4 ed. London: Arnold, 1955.

Tregold, A. F. Manual of psychological medicine; 3 ed. London: Bailliére, 1953.

Wells, K. F. Kinesiology; 2 ed. Philadelphia: Saunders, 1955.

PUBLIC RELATIONS AND THE ANTI-POLIOMYELITIS VACCINE

The following editorial appeared in the May 1956 issue of the *British Journal of Physical Medicine*, p. 118, under the heading:

WHAT PEOPLE WILL SAY

Now that the time has arrived when the vaccination of children against poliomyelitis is to take place, we feel impelled to devote a little space to a non-technical consideration of the programme to date. There has been so much written and spoken on the subject that, in spite of favourable opinion, intelligent parents still feel that there is a certain amount of confusion and doubt. Articles in the popular press have played upon their emotions and there was no one in authority to whom they could turn for advice in a matter which they believed might have an untoward effect upon their children.

We may be wrong in applying our own particular experience as a generalization but we do not think so, since if there had been more informed opinion a goodly proportion of the material that was written would never have appeared. In our own area parents applying to their general practitioners for guidance were met, in some cases, with lack of knowledge or with a 'wait-and-see' attitude. Such are not calculated to inspire confidence and the former represents an unfortunate state of mind. Doctors have a responsibility towards their patients and it is therefore their duty to find out the true facts in cases such as this.

It is a regrettable but undeniable fact that politics has entered into the sphere of medicine. The vaccination programme was launched by a politician, therefore it was essential that there should be no dogmatism about the vaccine and that enough loopholes were left. Questions were asked in Parliament which were reported with such headlines as 'Polio Vaccine Fears'; non-medical people made statements on medical matters which were widely reported. By all means condemn the programme on political grounds, but let those who do make sure that the emphasis falls in the right place; then having made the point, forget about politics and accept the vaccine on its merits. We may live in an age of mediocrity but let us not hinder the progress of medicine with small-mindedness. We suspect that those who weighed against the vaccine did so from reasons completely dissociated from the facts, if indeed these facts were ever known to them.

For those who consider that the programme was rushed there were good and valid reasons why the present scheme should be adopted if they had taken the trouble to find them out; in fact they would even have appeared if a little thought had been given to the situation. To those who adopted, and still adopt, a 'wait-and-see' attitude we would answer that now is the time to take preventive measures and not wait until poliomyelitis assumes great proportions. Reflect that several million children have been vaccinated in other countries with no ill-effects.

Even those who spoke with the voice of authority gave no real guidance to wondering parents. What advice was given to help them make up their minds? It was up to them to make up their own minds. Was the vaccine safe? It is as safe as it can be. Answers like these were not what was wanted. In considering a vaccination programme such as this there is a vast number of points that arise and no lay person can reasonably be expected to give considered judgment, especially when it affects his own children. In March we dealt with the problem of the vaccine itself and its safety. There are many other problems, not the least of which is the duration of immunity. If this is relatively short-lived is there a danger of producing a population which will be susceptible to natural infection at an older age when poliomyelitis is more dangerous? If repeated vaccination is necessary will this produce any unwanted effects?

Although we are of the opinion that the future control of poliomyelitis lies with orally administered attenuated virus, after due consideration of the facts we feel that the present vaccination programme is an important step in the right direction but that its mode of presentation to doctors and general public alike left a lot to be desired.

AMOEBIASIS: A NEW COMPOUND FOR ITS TREATMENT IN LABORATORY ANIMALS

Laboratory experiments carried out by Dr. Edward F. Elslager and co-workers (of Parke, Davis & Co., Detroit) foreshadow the development of a new amoebicide. Of the group of synthetic amoebicides known as the heterocyclic acetamides, the most active is DHPA [2, 2-dichloro-N-(2-hydroxyethyl)-N-(4-pyridylmethyl) acetamide].

DHPA and 6 other related compounds were active against intestinal amoebiasis in rats. DHPA was more active against intestinal amoebiasis in rats than such anti-amoebic drugs as diiodohydroxyquinoline, iodochlorohydroxyquinoline, chiniofon, carbarsone, acetarsone, erythromycin sterate and tetracycline. It was also active against amoebic dysentery in dogs, but was ineffective against amoebic hepatitis in hamsters.

The experiments have so far been confined to laboratory animals and no clinical trials have yet been undertaken.

NEEDLE BIOPSY OF THE THYROID GLAND

Needle biopsy of the thyroid gland has been employed at the Thyroid Clinic of the Massachusetts General Hospital during the past 4 years. A total of 175 goiters has been biopsied, with aid in diagnosis in 74%. Its greatest value has been in the diagnosis of thyroiditis. (Hamlin, Jr. E. and Vickery, A. L. (1956): New Eng. J. Med., **254,** 742.)

PROFESSIONAL APPOINTMENTS

SAICCOR SICK FUND

All medical practitioners in the Umkomaas area who would like to assist in providing a domestic medical service to members and dependent members of the above Fund are invited to apply to the Secretary, P.O. Box 62, Umkomaas, as soon as possible.

The general operation of the service will be under the direction of the Fund's Medical Officer.

Remuneration will be on the basis of services rendered at Medical Association rates.

Full details of the scheme may be obtained from the Fund's Secretary or Medical Officer.

South African Medico-Legal Society

P.O. BOX 6434 • JOHANNESBURG

The object of this Society is the promotion of medico-legal knowledge in all its aspects.

This is attained *inter alia* by holding meetings at which papers are read and discussed.

To The Honorary Secretaries,
South African Medico-Legal Society,
P.O. Box 6434,
Johannesburg.

I, ...
.....
.....
.....

wish to apply for membership of the South African Medico-Legal Society.
I enclose my cheque for £2. 2. 0, being the subscription for 1 year.

* * *

Medical practitioners are invited to become members of this Society

* * *

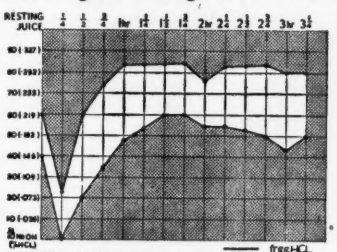
The annual subscription is £2. 2. 0. and entitles members to receive free the *Journal of Forensic Medicine*, published quarterly.

(J3/2H)

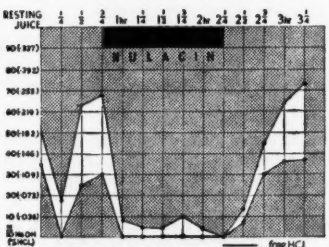
Drip therapy without a tube

NULACIN

In the past, the successful treatment of many cases of peptic ulceration demanded hospital conditions. Now, by means of NULACIN Tablets, it is possible to control gastric hyperacidity without any inconvenience to the patient. By using NULACIN Tablets as directed, an ambulant patient can obtain all the advantages of intragastric milk-alkali drip therapy.



GASTRIC ANALYSIS Superimposed gruel fractional test-meal curves of five cases of duodenal ulcer



GASTRIC ANALYSIS Same patients as in Fig. 1, two days later, showing the striking neutralizing effect of sucking Nulacin tablets (3 an hour). Note the return of acidity when Nulacin is discontinued

INDICATIONS

NULACIN tablets are indicated whenever neutralization of the gastric contents is required: in active and quiescent peptic ulcer, gastritis, gastric hyperacidity.

Beginning half-an-hour after food, a NULACIN tablet should be placed in the mouth and allowed to dissolve slowly. During the stage of ulcer activity, up to three tablets an hour may be required. For follow-up treatment, the suggested dosage is one or two tablets between meals.

NULACIN tablets are not advertised to the public, have no B.P. equivalent, and a dispensing tube of 25 tablets is freely available throughout South Africa and Rhodesia.

NULACIN tablets are prepared from whole milk combined with dextrins and maltrose, and incorporate Magnesium Trisilicate 3.5 grs.; Magnesium Oxide 2.0 grs.; Calcium Carbonate 2.0 grs.; Magnesium Carbonate 0.5 grs.; Ol Menth. Pip. q.s.

BIBLIOGRAPHY

The Control of Gastric Acidity. *Brit. Med. J.* 26th July, 1952, 2, 180-182
Medical Treatment of Peptic Ulcer. *Med. Press* 27th February, 1952, 227, 195-199
Notes on Remedial Agents. *Med. Rev.* September, 1952, 46, 162
Discussion on Peptic Ulceration. *Proc. Roy. Soc. Med.* May, 1953, 46, 354
The Effect on Gastric Acidity of "NULACIN" Tablets. *Med. J. Aust.* 26th November, 1953, 2, 823-824
Control of Gastric Acidity by a New Way of Antacid Administration. *J. Lab. Clin. Med.* 1953, 42, 955
Further Studies on the Reduction of Gastric Acidity *Brit. Med. J.* 23rd January, 1954, 1, 183-184
Clinical Investigations into the Action of Antacids. *The Practitioner* July, 1954, 173, 46
Management of Peptic Ulceration in General Practice. *Med. World.* December, 1954, 81, 591-601
Ambulatory Continuous Drip Method in the Treatment of Peptic Ulcer. *Amer. J. Dig. Dis.* March, 1955, 22, 67-71

Sole South African distributors:

B.P.D. (S.A.) (PTY.) LIMITED
P.O. Box 45, Jeppestown, Transvaal

Sole Rhodesian distributors:

R. F. OAKLEY & CO. (PVT.) LTD.
7 Gordon Avenue, Salisbury

HORLICKS LIMITED
PHARMACEUTICAL DIVISION
SLOUGH, BUCKS.

541/55

Dextraven comes first—everywhere

Throughout Australia, Africa, the Middle East—and now in the Antarctic—supplies of Dextraven are kept ready for emergencies. It can be given immediately by intravenous infusion—no matching of blood necessary, no chance of infection . . . NO FATAL DELAY.

Whenever it's a matter of maintaining circulating volume, there's a clear case for Dextraven, the established, clinical dextran solution. Blood is not essential in the first instance and may not be needed at all unless hæmorrhage has been massive.

Dextraven is safe, sterile, stable, needs no saline. And—something of national importance—*its very much cheaper than either blood or plasma.*

DEXTRAVEN is approved by the Ministry of Health. Fully descriptive literature is available and a Technical Information Service is always at your disposal.

Dextraven

TRADE MARK

A BENGER PRODUCT

FISONS CHEMICALS (S.A.) (PTY.) LTD., P.O. BOX 5788, JOHANNESBURG.
BENGERS LABORATORIES LTD., HOLMES CHAPEL, CHESHIRE, ENGLAND.

Published by the Proprietors Juta and Co. Ltd., 43 Pritchard Street, Johannesburg, and printed in the Union of South Africa by Cape Times Limited, Parow, C.P.